LIBRARY
RECEIVED
MAY 6
U. S. Department of Agriculture
307.8
So12

SOAP

MAY 1937

"Select Ungerer Products"

IONONES

Iriszone 100%
Iriszone Beta Extra
Iriszone "S"
(Methyl Ionones)

Odanol
Odanol "S"
(Ionone Ketones)

Virone Alpha
Virone Alpha Beta Extra
Virone Alpha Water White
Virone Beta

UNGERER AND COMPANY
13-15 West 20 St., New York
Philadelphia Chicago Boston
St. Louis Los Angeles
San Francisco Toronto

SOAPS
INSECTICIDES
DISINFECTANTS
CHEMICAL SPECIALTIES
SANITARY SUPPLIES
POLISHES
CLEANERS

FOR SOAP

GARDENIA BLANC represents the ultimate result in a studied development of the finest possible Gardenia odor for cosmetic materials—particularly face powder, talc, lotions, etc. Fresh, flowery and remarkably true to the long sought natural flower note, GARDENIA BLANC offers the progressive perfumer and cosmetician the ultimate in Gardenia scents.

Our perfume laboratory will be pleased to make additional suggestions as to the best possible adaptation of GARDENIA BLANC to your own products on request.

GARDENIA BLANC is very moderately priced at $11.00 per pound—or a trial ounce at 90 cents.

FIRMENICH & CO., INC.

135 FIFTH AVENUE, NEW YORK, N. Y.

COUNT "7" POLISH for METALS
A few dabs, a few seconds, a quick wipe—and there's the polish! Nothing in it to damage metal — and there is nothing in metal that can damage its famous speed demonstration.
FULSHINE Alkali-Proof NO-RINSE CLEANER
Neutral? Yes! But more than neutral! It cleans, too! But it more than cleans!— It SHINES and PROTECTS. And it sells! But more than that it sells under your label.
Exclusively YOURS!
Deodorant Blocks
Liquid Cleaners
Liquid Oil and Base Soaps
Disinfectants
Insecticides
Waxes
Floor Seals and Treatments
Polishes
Plumbing Specialties
Special Cleaners
Boiler Compounds
Liquid Deodorants
Soap Dispensers and Holders
Technical Department
Come on, FLIES! and other insects
And come they will! But, you'll "enjoy" their coming when you have our 100% Pyrethrum Spray which you can sell most profitably under your own exclusive label.
VITOZONE processed DEODORANT BLOCKS
They're in line on price but they step out ahead of the line in quality of perfume and preference of cost-wise consumers.
FULD BROS.
702-710 SOUTH WOLFE STREET
BALTIMORE MARYLAND
FULD MAKES LEADERS
IN BULK
or packaged under PRIVATE LABEL

NIAGARA

CAUSTIC POTASH and CAUSTIC SODA

● Niagara's reputation for meeting demands promptly is based on the policy of always keeping ample stocks on hand to take care of emergencies...and the ability to produce large quantities in double quick time. On your next requisition for CAUSTIC POTASH or CAUSTIC SODA write:

Ready for Quick Delivery

Niagara
ALKALI COMPANY
60 East 42nd Street, New York, N. Y.
Associated with Electro Bleaching Gas Company, Pioneer Manufacturer of Liquid Chlorine

SOAP

Volume XIII
Number 5

Contents

- Editorials 19
- Glycerine Situation 21
- Soap Fats in 1936..... 23
- Consumer Preferences in Soap Products..... 25
- Soap Powder and Scouring Powders..... 28
  By Joseph M. Vallance
- Specifications for Milled Toilet Soap..... 31
- Coconut Oil—Are Prices Too High?..... 32
- Abrasive Hand Soaps..... 61
- What Odor for Liquid Insecticides?..... 90
- Thallium Hazards 95
  By Dr. W. C. Munch
- Automobile Polishes 101
- Contracts Awarded 49
- New Trademarks 51
- Raw Material Markets..... 55
- Raw Material Prices..... 57
- Products and Processes..... 64
- New Equipment 69
- New Patents 71
- Classified Advertising 127
- Advertisers' Index 136

May, 1937

MEMBER AUDIT BUREAU OF CIRCULATIONS

SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 75. Production Section begins on page 61.

Published monthly by

MAC NAIR-DORLAND COMPANY, INC.
254 WEST 31st STREET NEW YORK, N. Y.

Subscription rate, $3.00 per year. Foreign, including, Canadian. $4.00. Copy closing dates—22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, under act of March 3, 1879. Mail circulation, April, 1937, issue, 3,759 copies. Total distribution, 4,000.

A Market for
SOAPS
SANITARY PRODUCTS
SANITARY ACCESSORIES

Because SOAP thoroughly covers the entire soap, sanitary products and chemical specialty fields, including janitor supply houses as well as manufacturers, the magazine is a market place for all kinds of bulk and private brand products and sanitary accessories. Whether you sell soap bases, finished bulk or private brand soaps of any kind, disinfectants, insecticides, floor or moth products, mops, brushes, floor machines or, in fact, anything in this line that is handled on a jobbing basis, SOAP is the magazine to use for advertising.

Look on page 132 for a complete list of firms advertising bulk products. Most of these advertisers have been using space for several years. In a good many instances they are now using considerably more advertising than they were at the start. What better recommendation as a result getter could SOAP possibly have? As for sanitary accessories—the same firms buy mops, brushes, floor machines, etc., as buy bulk and private brand products for resale.

If you are in position to handle business of this type why not get full information about what SOAP has done for others in the bulk field? Remember—even manufacturers buy bulk and private brand products because few concerns interested in marketing a complete line have facilities for making everything in their own plants. Add to this the requirements of the regular janitor supply industry and you have something worth making a special effort to get.

Advertising Department, SOAP
254 W. 31st St. New York City

THE IDEAL PERFUMING MATERIAL
for . . .
LAUNDRY SOAPS
Washing POWDERS
Liquid CLEANSERS
POLISHES
etc.
avonella
SOAP
SOAP
POWDER
CLEANSER
SOAP
POLISH
Javanella
will impart to your product a fresh, clean and lasting scent.
As Javanella is a manufactured article, it is free from the price fluctuations of natural essential oils. It is always less expensive than Citronella, Sassafras and similar items which are frequently used for scenting the class of products mentioned above.
FELTON CHEMICAL COMPANY INC.
603 JOHNSON AVENUE, BROOKLYN, N. Y.
Aromatic Chemicals — Natural Isolates — Perfume Oils — Artificial Flower and Flavor Oils
Stocks carried in following cities:
Boston, Mass. 80 Boylston St.
Philadelphia, Pa. 200 So. 12th St.
Sandusky, Ohio 1408 W. Market St.
Chicago, Ill. 1200 N. Ashland Ave.
St. Louis, Mo. 245 Union Blvd.
New Orleans, La. Balter Bldg.
Los Angeles, Calif. 515 So. Fairfax Ave.
It will pay you to investigate the merits of Javanella. Sample and quotation on request.

D&O ESTABLISHED IN 1798

ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES
For the Soap and Insecticide Industries

We offer a complete range of perfume materials for the

Soap and Allied Industries

ESSENTIAL OILS

of our own distillation

Clove **Guaiacwood**
Nutmeg **Safrol**
Sandalwood **Patchouly**
Sassafras Artificial

AROMATIC CHEMICALS

manufactured by ourselves or under our control

Aubepine **Ionones**
Linalyl Acetate **Methyl Ionones**
Terpineol **Heliotropine**
Methyl Cinnamate **Coumarin**

"D & O" PERFUME BASES

a variety of odors for toilet soaps of which we call special attention to

Heather 7776 . . . . $4.00 per lb.
(a strong, lasting perfume of popular type)

Lavender 4260 . . . $3.50 per lb.
(a clean, refreshing odor)

For Insecticides

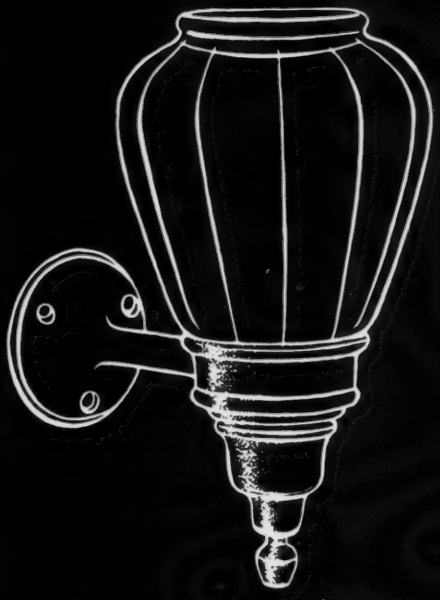
Our **PETRODORS**, non-staining odors which effectively mask petroleum derivatives, at prices from 50c to $2.00 per lb.

Dodge & Olcott Company

180 Varick Street New York, N. Y.

BRANCHES: *Philadelphia—Boston—Chicago—St. Louis—Los Angeles*

GRAVITY



DUODEK

One of the 23 Clifton modernized models. Folder is yours for the asking.

never FAILS!

NEITHER DOES THE DUODEK

●

That is the reason why the DUODEK has been the choice of the "Who's Who" in the liquid soap business for the past twenty years.

●

The never-fail gravity valve has no springs or intricate mechanisms to get clogged or out of order.

●

Replaceable glass globe easily cleaned inside. Extra heavy.

●

Releases an adequate amount of soap without fussing with the plunger.

●

User gets a good washing quickly.

●

Jobber sells more soap.

●

Everyone satisfied.

●

Also made with goose neck bracket.

●

Hundreds of thousands in use giving year-in year-out satisfaction.

●

LOW PRICE is merely one of the virtues of the DUODEK.

●

(Available with the spring valve if desired).

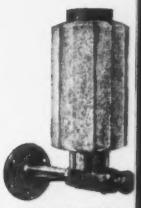
MODERNE

TRICONIC

GRAVITY TANK

PULLMAN

TILTYPE



SOPURNIA

MICROME VALVE

Interested in these items under attractive imprint labels?

CONCENTRATED LIQUID SOAP
COCONUT OIL BASE
OLIVE OIL BASE
DISPENSERS
RUB-NO WAX

DEODORIZING CAKES
DEODORIZING BLOCKS
WALL CONTAINERS
METAL POLISH
MOPPING VARNISH

DISINFECTANTS
FURNITURE CREAM
INSECT KILLER
SPOT REMOVER
SHAMPOOS

CLIFTON CHEMICAL CO.

246 FRONT ST. NEW YORK

Anchor Caps

CONCENTRIC CIRCLES of Anchor Caps in ever-widening spheres of usefulness . . . are shown in the illustration above. That really is the story of the growth of the Anchor organization. From a single closure some thirty years ago, the Anchor line has grown to the most extensive in the world, each style with a distinct packaging purpose. ¶ No wonder that Anchor has come to mean closure headquarters to the packaging industries; that whatever the product, whatever its characteristics or ingredients, any packer or manufacturer can turn to Anchor with confidence, knowing that his products will be fully protected, his packages attractively and securely sealed, and in such a way that it is convenient for the consumer to reach their contents and enjoy them to the full. Whatever your glass packing problems or conditions, the Anchor representative can offer you suggestions of value. ANCHOR CAP & CLOSURE CORPORATION, Long Island City, New York; Toronto, Canada. *Branch offices in all principal cities.*

★ ★ ★

Capstan Glass

WITH COMMERCIAL GLASSWARE there are very real advantages in having families of containers available . . . so that packagers can put up a complete range of sizes in the style they determine to be most suitable and adaptable. But just as with human families, mere numbers are not so important as that the family spring from sturdy, worthy forebears. Back of all Capstan containers you will find an aristocratic manufacturing background, a company that has always possessed ideals of quality and lives up to them, an organization that is skilled, experienced and trustworthy. ¶ Each of Capstan's infinite variety of styles and sizes is a sturdy, capable member of society, a scion of noble lineage. May we prove our point that Capstan's are quality glass containers by sending you samples. CAPSTAN GLASS COMPANY, Connellsville, Pa.; *Associate Company:* SALEM GLASS WORKS. *Branch offices in all principal cities.*

★ ★ ★

Something Above The Ordinary

Achieved With Our Line of

Perfume Specialties!

- Gardenia
- Jasmin
- Dahlia
- Florian
- Fougere
- Lilac
- Lys
- Sandalwood
- Roseone
- Tuberose
- Cologne
- Easter Lily

for
soaps
shampoos
bath
salts
etc.

ORDINARY odors, we suppose, do well enough for ordinary products. We have long had a feeling, though, that the manufacturer who is making a product above the ordinary grade should take sufficient pride in it to give it an odor to match its own high quality. The best deserves the best, is our theory.

Another of our well-founded ideas is that the proper selection of a high-type odor can do much to lift the average product out of the strictly ordinary class. Time and again we have seen a shift to an improved odor give some manufacturer's soap, shampoo or spray that added air of distinction that brings increased consumer acceptance and added sales.

For years Roure-Bertrand Fils and Justin Dupont have been developing specialties, both natural and synthetic, for use by particular buyers. Experience gained through many years' contact with the European perfume industry, coupled with a definite knowledge of American requirements, put us in an admirable position to advise on perfuming problems. Let us suggest an odor for that new item in your line.

ROURE-BERTRAND FILS and JUSTIN DUPONT

Represented by:

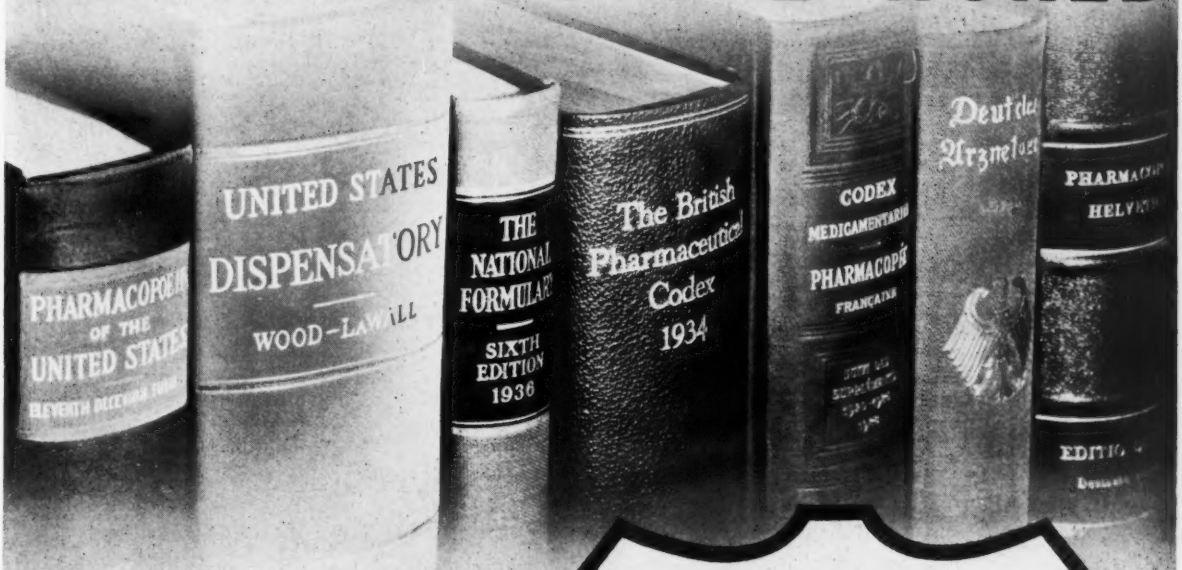
GEORGE SILVER IMPORT CO.

351 FOURTH AVENUE - NEW YORK CITY

CHICAGO
722 West Austin Ave.

LOS ANGELES
819 Santee St., Room 622

OFFICIAL
THROUGHOUT THE WORLD



Linseed oil is used for the preparation of official Sapo Mollis, and official Sapo Mollis is used, externally applied, for various conditions of the skin including forms of eczema and the like.

A change from linseed oil to cottonseed oil was considered so unsatisfactory as to impel the return to the use of linseed oil.

And now linseed oil soaps seem to owe their value to their vitamin F content.
(Kathryn Glennon, Soap, Nov., 1936)

Any soap can be made to approach the medicinal value of official soap by liberally incorporating vitamin F—the ingredient to which official soap seems to owe its value.

VITAMIN F
IS TO
OLEUM LINI, U.S.P.
(LINSEED OIL)
what VITAMINS A & D
ARE TO
OLEUM MORRHUAE, U.S.P.
(COD LIVER OIL)

PHARMACEUTICAL SPECIALTIES CO.
A Division of
ARCHER - DANIELS - MIDLAND CO.
New York—Woolworth Bldg. 155 E. Ohio St.—Chicago
Canadian Distributors: The F. W. Horner Co., Ltd., Montreal, Canada
(Pioneers in the industrial production of the original cold-pressed, stabilized and biologically assayed wheat germ oil—VITAMIN E)

To PHARMACEUTICAL SPECIALTIES CO.,
Woolworth Bldg., N. Y. C., Dept. S6
Check is attached for ¼-gal. of VITAMIN F (50,000 Shepherd-Linn units per gram) at $10. (Send quantity prices.)
Also, send Kathryn Glennon's article, titled "Vitamin Soaps."
Name.....
Firm.....
Address.....

.... just out!

"MODERN

SOAP MAKING"

By Dr. E. G. Thomssen and C. R. Kemp

The first entirely original American book on soap manufacture in 20 years. Thoroughly covers every phase of soap manufacture and glycerine recovery. Written by practical soap men . . . a truly practical book. 450 pages.

Contents

I **RAW MATERIALS.** Fats, oils, fatty acids, alkalies, perfuming materials, etc. Their selection, grades, constants, suitability, markets, etc. Methods of oil and fat refining, bleaching, storing, etc. 60 pages.

II **MACHINERY AND EQUIPMENT.** Types and uses of soap plant equipment. Diagrams of modern plant lay-outs, machinery arrangement, oil refining plant, etc. 12 pages.

III **SOAP MAKING METHODS.** Full practical description of soap making processes, full-boiled, semi-boiled, cold process, potash soaps, spray processes, etc. Complete details from material selection, kettle charging, through to finished soap—for all types of soaps, detailed according to processes. Numerous diagrams and plant views. 110 pages.

IV **SOAP PRODUCTS.** Every known type of soap described with raw materials, manufacture, characteristics, uses, etc. Soap manufacture described in this chapter according to products and their uses. Laundry, toilet, potash, medicinal, etc., soaps, soap powders, scouring powders, spray process soaps, chips, flakes, shampoos, etc. 101 pages.

V **GLYCERINE RECOVERY AND REFINING.** Recovery methods for glycerine with designs of plant lay-out and equipment. Continuous glycerine distillation. Full description from the kettle to the finished product. Also discussion of fat splitting methods, fatty acids, distillation and refining, and allied processes. 50 pages.

VI **ANALYTICAL METHODS.** Methods of sampling and chemical analysis for control during process and analysis of finished products. Analysis oils, fats, soaps of all kinds, glycerine, etc. Includes official methods of analysis for numerous products. 75 pages.

APPENDIX — Contains all needed reference tables, constants of oils and fats, alkali values, conversion tables, U. S. Government specifications for various soap products, and other valuable data.

$7.50 postpaid in the U. S. A.
$8.00 elsewhere.

MAC NAIR-DORLAND COMPANY

254 W. 31st Street *Publishers* **New York**

COLUMBIA

Another series of races will soon be sailed for the America's Cup. In the long history for the defense of this premier yachting trophy there have been two yachts named Columbia. Back in 1871 the center-board schooner Columbia took two races from the British challenger Livonia. She won because she was the faster boat in the prevailing weather conditions.

Schooner Yacht Columbia off Sandy Hook, October, 1871

SUCCESS

in business as in yachting depends in large measure on the selection of materials that best meet existing conditions. THE COLUMBIA ALKALI CORPORATION has been signally successful in supplying products developed, packaged and serviced to meet customers' individual requirements and convenience.

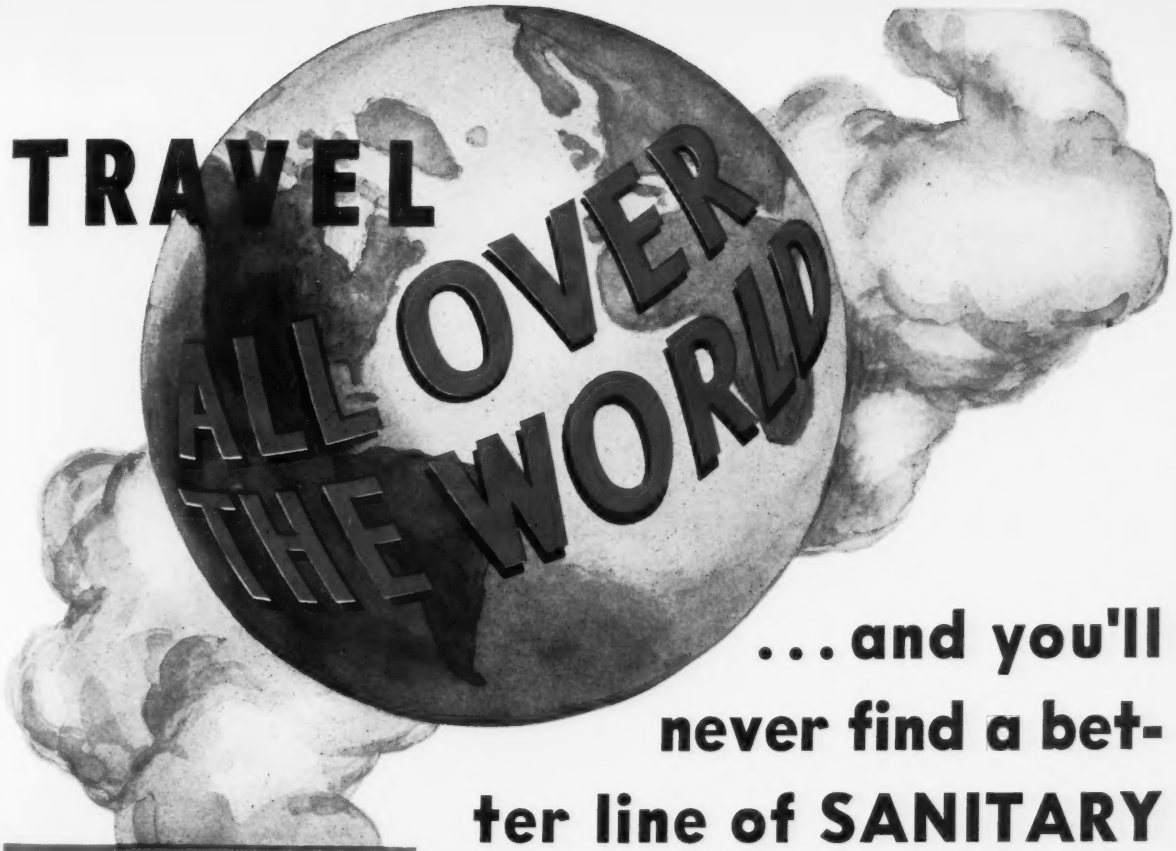
COLUMBIA

SODA ASH
CAUSTIC SODA
SODIUM BICARBONATE
MODIFIED SODAS
CALCIUM CHLORIDE
LIQUID CHLORINE

THE COLUMBIA ALKALI CORPORATION

BARBERTON • OHIO

NEW YORK • BOSTON • CHICAGO
PITTSBURGH • CLEVELAND • CINCINNATI



. . . and you'll never find a better line of SANITARY SUPPLIES than is made by Davies-Young

OIL SOAPS • COCONUT BASE SOAPS • LIQUID BASE SOAPS • SCRUBBING SOAPS • WAXES • POLISHES • FLOOR FINISHES • DISINFECTANTS • INSECTICIDES • DEODORANT BLOCKS

All produced under Laboratory Control . . . which assures UNIFORMITY

Sold ONLY through Jobbers

THE DAVIES-YOUNG SOAP CO.
Dayton, Ohio

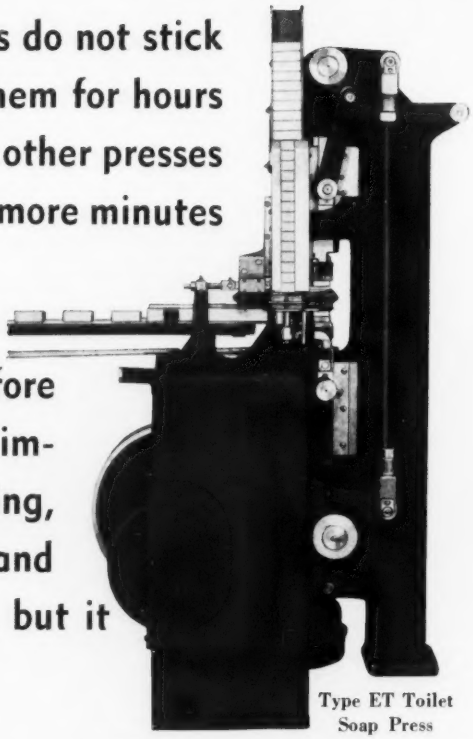
Copyright, 1936, By The Davies-Young Soap Co.

JONES

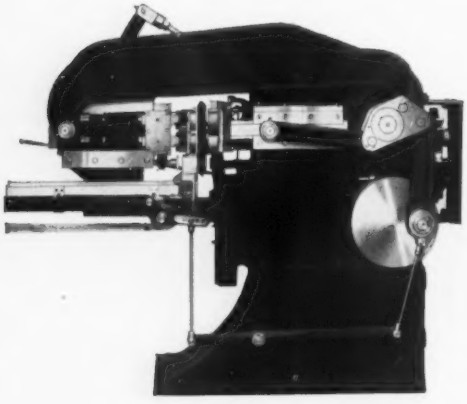
TOGGLE OPERATED

PRESSES

cause the soap to cohere so that particles do not stick to the dies, making it possible to run them for hours without stops for cleaning. Such stops on other presses put the whole line out of production for more minutes per day than you will realize without adding them up. Again, dies which accumulate scrap press only a few cakes before they begin to lose their finish and clean impression. If run too long before cleaning, many cakes will have to be remilled and pressed again. To do this costs money, but it costs more in loss of sales to neglect it.



Type ET Toilet Soap Press



Type K Laundry Soap Press

Toggle Operated Presses obviate such losses. They operate at higher speed, have a longer productive life, and treble the life of dies. Their noiseless, efficient operation conserves the nerves of workers. It will pay you to replace your older models with

JONES TOGGLE SOAP PRESSES

R. A. JONES & COMPANY, INC.

P. O. BOX 485 • CINCINNATI, OHIO

As the editor sees it....

AMERICAN industry consumed more oils and fats in 1936 than ever before in the history of the country,—almost five billion pounds. The soap industry used about one-third of this total, according to the annual figures of the Bureau of the Census, showing a slight increase in tonnage over the figures for 1935. However, the rate at which the consumption of fats by American industry for all purposes expanded last year, was once again greater than the expansion in fat consumption at the soap kettle. Back some years, soap accounted for about half of the fat consumption of the nation. Gradually, the soap figure has dropped down,—or rather the consumption in other channels has expanded,—until today it is almost exactly one-third of the total.

Irrespective of the relative importance of soap fats in the general oil and fat picture, American soap production continues close to the levels established in recent years,—that is, if we may judge production by the comparative fat consumption of the industry from year to year. But production cannot seem to rise beyond these levels. Year after year, since the peak year of 1929,—when fat consumption by soapers was several hundred million pounds greater than it was in 1936, and when the soap industry's share of total fat consumption was 44.5 per cent,—soap production has fluctuated within comparatively narrow limits. Toilet soap use rises, bar laundry soap consumption goes down, granules and powders go up, chips go down, and so forth, but no change which would indicate a broad, permanent upward trend in general soap consumption is apparent.

Do these figures mean that soap consumption has reached the saturation point? Or are we judging things over too short a period of time to have any real significance? Or is the soap industry really losing ground during a period when it should be gaining,—particularly when high wages, generally improved living standards, and expanded educational activities of the past decade are considered?

If the consumption of soap is really a true reflection of the state of the civilization of any nation,—they also say this about sulfuric acid, coal, tooth paste, paper, ladies' silk hose, and a host of other things,—then, maybe we are slipping. But at any rate, if soap consumption has reached an impasse, which superficial examination of the figures might indicate, then possibly somebody should find out why.

COCONUT oil price movements since the turn of the year might be interpreted as indicating a more ample supply of oil or a slackening of demand. From the Philippines, however, comes a report on the situation there which can only be interpreted as predicting higher prices for coconut oil later this year. The rush of copra to market during the latter half of 1936 in order to take advantage of the high price, is going to be reflected in a definite shortage of copra at least until next summer, says the report,—and any substantial buying interest will be bound to force up the price.

From other sources, has come the prediction that the consumption of coconut oil in the soap kettle this year is very likely to be cut at least twenty-five per cent unless the price goes materially lower. Every soaper is pictured substituting more and more coconut oil with other oils wherever possible,—increasing the percentage of other oils, adding oils heretofore not used, at the expense of high-priced coconut. Also comes the prediction for bumper crops of soy bean oil, linseed oil, corn oil, cotton oil, and other domestic oils, which if they become fact will unquestionably tend to lift the pressure on fatty raw materials generally to some extent.

The Philippines hold that higher prices are probable. Others see the stage set for lower prices.

So, it seems, that unless he has very good reasons to be on one side or the other, the likely spot for the average soaper right now should be on the fence.

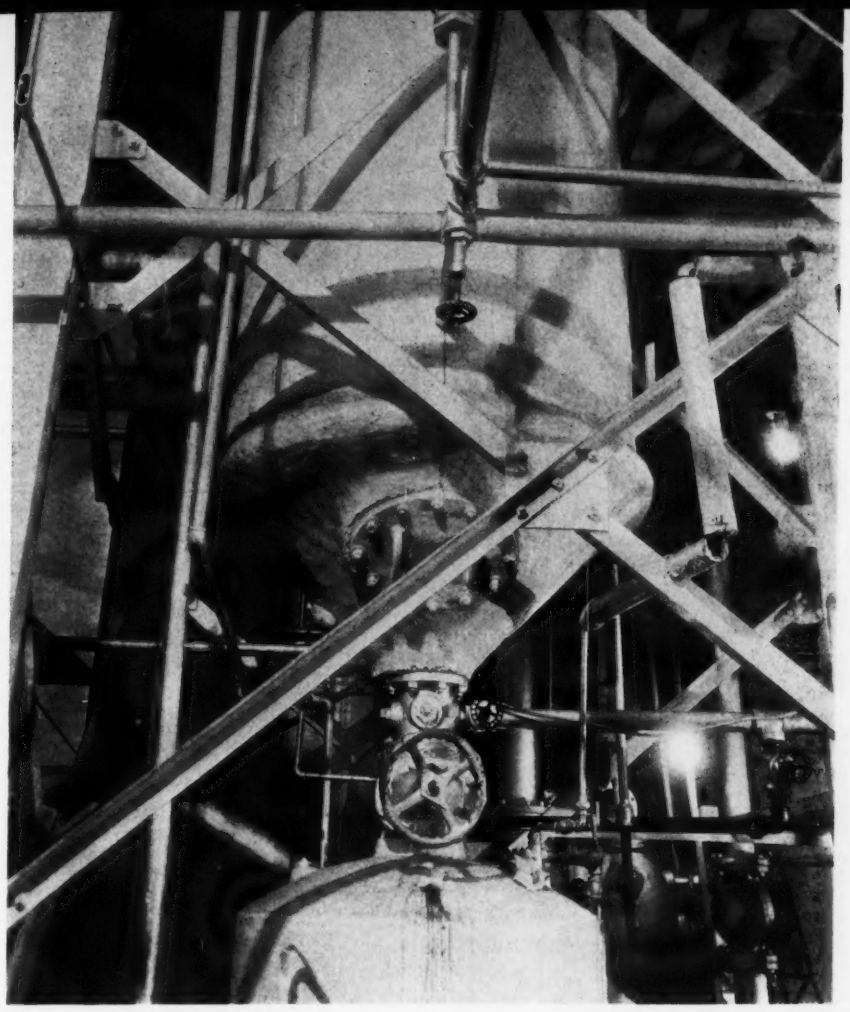
WITH an easing of the glycerine situation abroad, and with foreign crudes offered below the American market for the first time in many a moon, the domestic market for refined grades of glycerine softened appreciably in recent weeks. Prices have dropped off close to four cents per pound and available stocks are somewhat more plentiful. This easing of the glycerine market came just at the time when American producers were quite busy explaining to consumers, both large and small, that the tight situation in glycerine which had ruled for almost a year past, was only temporary. And they further explained that as soon as the active demand in Europe let up, and the possibility of European buyers draining the American market was past, the situation would ease. Evidently, the market has acted according to the schedule laid out for it,—and consumer worries about obtaining sufficient glycerine for their needs, should disappear.

HIGHER prices for base soaps going into the manufacture of shampoos and liquid soaps have given more than one firm the idea of making their own base instead of buying it as heretofore. Judging from inquiries which have come to us, a considerable number of base soap buyers have this in mind. They figure that they can make their base cheaper than the present cost, which apparently was not the case when base prices were considerably lower than they are today.

Inasmuch as the higher price of base soap is the direct result of an equivalent rise in the cost of coconut and other oils, we cannot see any material saving in buying high priced oil in place of high priced soap. We have so advised those firms which have asked for our advice. Furthermore, any manufacturing difficulties, spoiled batches, poor quality,—today these are on the head of the base manufacturer. They are something which the soap converter must consider as well as raw material cost.

In soap manufacture, as in everything else, "all is not gold that glitters." It is one thing to figure base soap costs on paper, and another thing to produce it in the plant at the calculated cost. To those who plan to make their own base and who have had no soapmaking experience, we recommend that they make haste slowly. To us, it appears that if it were logical to buy base soap at eight cents a year or so ago, it is just as logical to buy it today at twelve cents, considering the relative situations in the coconut oil market.

ONE of our British contemporaries pokes fun in a mild way at the pride with which Britishers have always viewed their own habits of cleanliness. The reason for this little joke is the relative soap consumption of the United Kingdom and certain other nations, the figures for which show the British Isles tied for fourth place with France. We, too, had our little chuckle along with the London editor until we reached the part where he stated that Holland is the premier soap consumer with thirty pounds annually per capita, and the United States is second with twenty-five pounds, just a scant nose ahead of Denmark which consumes twenty-four pounds. And all the time, we had been comfortably content in our belief that these United States led the world in per capita soap consumption. Now, we are shocked to find that we are wrong,—or at least, that a disinterested observer has some different ideas on the subject. Of what consolation is it that the United Kingdom is only tied for fourth, or that the soap consumption of China is only six ounces per capita? We cannot take this relegation of American soap consumption to second place without a struggle. The facts and figures must be unearthed and we are going to work to unearth them. Britain and France tied for fourth may be funny,—but beyond that, our sense of humor refuses to stretch.



Glycerine Situation

GLYCERINE values, in line with many other primary commodities, have shared recently in an advance that has been general, as is quite well known. In the main, the advance has been due to world re-armament. With glycerine, in particular, its increasing industrial usage has also been a prominent factor. There is hardly a branch of manufacture in which glycerine is not now used either as an essential constituent of the product itself or as an ingredient of some product used in process. The present situation, of course, is merely a temporary one, a duplication of what has happened before. The familiar economic law of supply and demand holds good in determining glycerine values just as it does with other commodities. It cannot be forgotten that glycerine is a by-product of which world production normally is about equivalent to world consumption. Shortages and surpluses are temporary conditions created by abnormal conditions.

The United States in the past has generally been dependent upon imports of glycerine to help supply actual domestic requirements. When world supplies of glycerine are plentiful, it has at times been difficult for this country to absorb this world surplus. On the other hand, when the world supplies of glycerine have been scarce, United States consumers naturally have found difficulty in filling their demands at sound economic prices.

From the standpoint of the glycerine producer, the resultant advance in glycerine prices is unwelcome. The glycerine producer is interested primarily in a broad diversified market at a range of prices that will keep the product attractive to old users and encourage potential new uses. He realizes that advancing or rapidly fluctuating markets cause concern to the large industrial buyers and tend to impair the goodwill that he strives to maintain for his product.

Reviewing briefly the market for glycerine during the past twenty-five years, the record shows that prices have been held on the whole

at reasonably sound levels with the exception of such periods as during the four years of the World War (1914-1918), or during a rapidly increasing demand for the product in some new use, as was the case with the sudden heavy increase in anti-freeze in 1926, and as during the past six months for other reasons.

The depression years of 1932-33 saw glycerine prices sink to levels that were equal to or below the cost of production. As a result, production in the United States was materially curtailed. In many foreign countries, the recovery of glycerine was almost entirely abandoned. Hence, with the rebound of industrial activity in late 1933, there was no cushion of world supplies as a reserve against the rapidly increasing demands of industries through the past three years. Even under these conditions, the world production of glycerine would probably have been adequate to meet the demand had it not been for the world re-armament programs which caused export restrictions by some of the principal European nations.

Figures indicate that unless the world market values of glycerine are closely followed by United States producers, there is a definite risk of an export movement and depletion of domestic supplies. This, in natural sequence, entails the subsequent importation of larger quantities at higher prices. Glycerine producers in the United States and in Canada and England, in their effort to maintain reasonable price levels for their product, lagged so far behind the world market figures that American exports of glycerine rose from practically nothing in previous years to a total of 3,353,000 pounds in 1935. In the following year of 1936, they dropped to just over a million pounds.

Recognizing that too rapidly advancing prices are detrimental to the best interests of any product, nevertheless, it has been essential to safeguard the interests of American industrial users of glycerine by at least insuring that all domestic production stay in the United States for domestic consumption. As a practical necessity, therefore, and with little choice in the matter, the glycerine producer in the United States has been forced to quote a price at least as high as the import parity.

Reverting, for purposes of comparison, to other commodities which have participated in the general advance, it will be seen that glycerine prices, while admittedly sufficiently high to arouse some concern as to future prospects, are not far out of line with other commodity values. In the past year, all re-armament materials such as copper, steel, lead, zinc and rubber have scored notable advances due both to heavy purchases for potential war stocks, and to wage increases within producing industries.

Glycerine, however, should not be identified to too great a degree as a war material. Its use as a propellant for war explosives is almost obsolete, but since heavy production of metals requires heavy consumption of nitro-glycerine for mining, glycerine values will always tend to rise with increased production of metals. The growing diversification of glycerine usage, too, in manufacturing a wide variety of re-armanent products accounts for greatly increased consumption outside the explosives field. In short, the wide general industrial use of glycerine is far more important as a consumption factor than use in war-time explosives.

The United States entered the latest period of increased glycerine usage with insufficient world stocks to take care readily of the rising demand, since as previously pointed out, the depression values of 1931 to 1933 had discouraged production. The same situation has been evidenced in the case of copper, but with the very important difference that copper can be produced as fast as men are hired and mines reopened. An increase in glycerine production, on the other hand, can only be created by increased consumption of soap or candles.

Perhaps, it is too much to expect that large buyers of glycerine the world over should encourage glycerine production during depression periods by paying prices which would at least maintain normal production. In the light of recent events, however, this would have proved an exceedingly profitable policy to have followed during 1931-32-33. The tonnage of glycerine taken by large buyers at less than the cost of production and consequent limitation, if not actual stoppage, of production in many countries, has been fully as large a factor as increased consumption in bringing about recent scarcity and price advances.

Summarizing the present situation from the standpoint of supply, the following points are to be noted:

1. While production lagged during 1932 and 1933, United States production reached an all-time high in 1936, and is still being maintained at the top rate.
2. Present prices are stimulating world production and imports to this country.
3. It is logical to expect a surplus of glycerine due to imports when foreign countries have completed their re-armament plans and release their accumulations. This surplus, in fact, may also develop internally when and if high prices force demand to drop below supply.

On the demand side there is apparent: (1) further increased diversification of usage with slow, but steady substitution if prices remain at present levels; (2) further increased consumption in present uses as world industrial production increases, always being mindful of the fact that at 15 cents per pound glycerine will find many outlets which are closed to it at 30 cents per pound; (3) the fact that no really universal substitute for glycerine has been discovered; and (4) apparently the synthesis of glycerine on a commercial scale at a reasonable price is not in the offing.

There has been no effort made in this discussion to touch on inflation of world currency values as such with the resulting higher commodity values which may carry glycerine along with them. Obviously, however, the inflationary influence of re-armament pervades all the price factors which have been cited and is accordingly not to be discounted in any analysis of present conditions.

Soap Fats in 1936

Consumption of oils and fats in soap kettle rose 4.8%—Coconut oil increase greatest—U. S. fat consumption at the highest point in history

LED by a sharp rise in coconut oil, the consumption of all oils and fats in the soap kettle in 1936 increased 4.8 per cent above the figures of 1935. In fact, the increased use of coconut oil by soap makers represented more than the entire increase in fat consumption by soapers last year. The total increase in the consumption of all fats in the soap kettle in 1936 was some 73,000,000 pounds. The increased use of coconut oil for the same period amounted to almost 78,000,000 pounds. The coconut increase, however, followed one of the sharpest drops in consumption which took place in 1935, in which year soapers used about a hundred-million pounds less than in 1934. Even with the increase, coconut oil consumption at the soap kettle in 1936 was 35,000,000 pounds below 1934.

The total consumption of fats and oils in the United States for all purposes in 1936 made another all-time record.—4,784,226,000 pounds.* This compared with approximately four-and-a-half billion in 1935, and four billion pounds in 1934. Of the tremendous fat total used in 1936, edible products took almost half, or 2,296,656,000 pounds. The soap kettle took 1,602,377,000 pounds, while paint, varnish and linoleum used something over a half-billion pounds, with the balance scattered among smaller groups. General fat consumption for the nation was up 6.4 per cent in 1936 over 1935, while the soap industry increase for the same period was only 4.8 per cent. Cottonseed oil consumption, with a total of 1,302,827,000 pounds was the leader by a wide margin, practically all of it in edible channels. Tallow, both edible and inedible, was second with some 845,000,000 pounds. Coconut oil was third with 602,273,000 pounds.

*All figures from Bureau of the Census report on Consumption Oils and Fats for 1936.

A study of 1936 oil and fat consumption figures, particularly at the soap kettle, does not reveal any basic shift in demand which might be looked for as a result of the expansion in the excise tax structure during the year. This might also be taken to indicate that the soaper is more or less closely restricted in his choice of fatty raw materials irrespective of taxes or costs. One rather notable case showed up in the 1936 fat and oil figures which was not included in 1935. This was babassu oil, of which 35,764,000 pounds were used last year. Most of this went into food products, only about 9,000,000 pounds going to soapers. In 1935, only 1,838,000 pounds all-told of babassu oil were used in the U. S.

The maximum quantity of tallow went to the soap kettle in 1936, as in the two previous years,—something over 660,000,000 pounds. Much the same was true of grease last year with 98,000,000 pounds, the same figure as 1935. This latter figure, however, compared with almost 143,000,000 pounds of grease in 1934. Fish and whale oils which were taken by soapers in 1936 showed a jump over 1935. Last year, the total was 160,647,000 pounds; in 1935, it was 138,410,000 pounds.

One of the striking points which are brought out by the figures of the 1936 oil and fat report, is the reduced relative importance of the soap industry as a fat consumer in recent years. Whereas some years back,

LEADING OILS AND FATS USED IN SOAP MANUFACTURE, 1933-36 (in pounds).

	1933	1934	1935	1936
Coconut Oil	322,264,000	341,124,000	229,711,000	307,376,000
Palm Oil	187,962,000	154,704,000	87,311,000	78,453,000
Olive Foots	31,878,000	30,411,000	31,507,000	23,965,000
Tallow	508,824,000	663,956,000	664,433,000	660,248,000
Grease	124,743,000	142,782,000	98,086,000	98,714,000
Fish-Whale Oil	97,000,000	98,544,000	138,410,000	160,647,000
Totals (all oils used in soap)	**1,475,963,000**	**1,634,271,000**	**1,529,106,000**	**1,602,377,000**

the soap kettle accounted for about half of the fats, oils, and greases consumed in the United States, only about one-third of the total consumption last year went into soap. In spite of a 4.8 per cent increase in fats used by soapers in 1936, the soap percentage of the total fat consumed for all purposes showed a slight drop. Last year, 33.5 per cent of all fats consumed in the United states went into soap. In 1935, the percentage was 34, and in 1934, it was 40.5. These figures probably emphasize an expansion in the fat eating habits of Americans, rather than any material decline in soap consumption.

Another point is the steady decline in the use of palm oil in soaps during the past four or five years, hitting a low in 1936 when only 78,453,000 pounds were used. This compares with about 188,000,000 in 1933; 155,000,000 in 1934; and 87,000,000 pounds in 1935. This does not indicate any decrease in the total consumption of palm oil, but only a decline in soap-kettle use. The explanation is that more and more palm oil is going each year into edible and other fatty products, and less into soap,—probably a direct reflection of the improved quality of palm oil coming to the U. S. in recent years.

Olive foots showed a drop in 1936 as far as soapers were concerned, — about 24,000,000 pounds were used as against 31,000,000 pounds the previous year. Palm kernel oil showed a drop from 37 to about 26 million pounds over the same period, the explanation probably being the same as in the case of palm oil,—a greater demand for edible uses. Other details in the changes and trends in consumption of fats at the soap kettle are shown in the accompanying tables.

COMPARATIVE FAT CONSUMPTION IN SOAPS

	1934	1935	1936
Total consumption of all fats for all purposes in U. S.	4,028,003,000 lbs.	4,494,287,000 lbs.	4,784,226,000 lbs.
Total consumption of fats in soap kettle	1,634,271,000 lbs.	1,529,106,000 lbs.	1,602,377,000 lbs.
Increase or decrease from previous year used in soap	+12%	—6%	+4.8%
Per cent of total fat consumed which went into soap	40.5%	34%	33.5%
Probable approximate soap production based on fat consumption	3,300,000,000 lbs.	3,000,000,000 lbs.	3,200,000,000 lbs.

FACTORY CONSUMPTION OF ANIMAL AND VEGETABLE FATS AND OILS IN 1936

The distribution of primary animal and vegetable fats and oils consumed in factory operations in the United States during the calendar year 1936, by classes of products in which used. Data for oleo stock were not collected, hence the secondary products, edible animal stearin and oleo oil, are shown. The statistics were compiled from reports to the Bureau of the Census. Oils subjected to the process of hydrogenation or other treatment for special uses were reported as consumed in the products for which intended. For example: Oils treated for soap manufacture were entered in the column headed "Soap" and oils intended for edible purposes were entered in one or more of the columns covering edible products. The ultimate uses of the primary oils are dsignated in this way.

(Quantities in thousands of pounds)

KIND	TOTAL	Compounds and Vegetable Shortenings	Oleomargarine	Other Edible Products	Soap	Paint and Varnish	Linoleum and Oilcloth	Printing Inks	Miscellaneous Products	Loss Including Foots
Total	4,784,226	1,610,690	322,719	363,237	1,394,538	441,282	101,882	20,206	321,833	207,839
Cottonseed oil	1,302,827	918,866	108,106	178,330	1,278	34	.....	15	2,281	93,917
Peanut oil	103,735	88,470	4,140	2,419	1,734	.....	.....	.....	44	6,928
Coconut oil	602,273	38,427	150,465	60,020	307,376	771	.....	1	3,939	41,274
Corn oil	72,132	430	1,238	51,017	2,527	123	.....	.....	3,967	12,830
Soybean oil	184,563	113,897	14,262	21,598	5,023	14,471	2,886	62	3,405	8,959
Olive oil, edible	4,312	.....	.....	3,972	53	.....	.....	.....	287	.....
Olive oil, inedible	10,458	.....	.....	.....	1,634	.....	.....	.....	8,824	.....
Sulphur or olive foots	24,577	.....	.....	.....	23,965	.....	.....	.....	612	.....
Palm-kernel oil	44,104	627	2,400	12,490	26,443	.....	.....	.....	54	2,090
Rapeseed oil	50,906	30,572	9	808	7,771	168	13	.....	10,182	1,383
Linseed oil	305,330	.....	.....	.....	1,482	233,340	50,076	14,968	5,464	.....
China wood oil	107,875	.....	.....	.....	2	94,642	7,131	2,331	3,769	.....
Perilla oil	80,019	.....	.....	.....	8	53,222	17,717	1,940	7,132	.....
Castor oil	31,855	.....	.....	.....	1,623	3,766	1,066	158	25,242	.....
Palm oil	301,373	168,808	1,402	195	78,453	1	.....	2	*24,449	28,063
Sesame oil	55,335	33,120	57	16,728	1,869	.....	.....	.....	21	3,540
Sunflower oil	1,230	208	5	920	.....	97	.....	.....	.....	.....
Babassu oil	35,764	5,368	16,114	2,995	8,993	.....	.....	.....	36	2,258
Other vegetable oils	43,904	15,640	442	5,025	4,268	4,614	6,758	.....	4,955	2,202
Lard	7,318	4,503	2,198	471	9	.....	.....	5	63	69
Edible animal stearin	44,918	36,358	3,550	4,370	320	.....	.....	.....	320	.....
Oleo oil	21,782	1,839	18,331	467	57	.....	.....	.....	1,088	.....
Tallow, edible	118,998	116,908	.....	1,412	228	.....	.....	2	334	114
Tallow, inedible	725,974	.....	.....	.....	660,020	135	.....	7	65,265	547
Grease	204,532	.....	.....	.....	98,714	94	.....	468	104,792	464
Neat's-foot oil	5,727	.....	.....	.....	41	7	.....	1	5,647	31
Marine animal oils	35,388	.....	.....	.....	32,603	17	.....	11	2,747	10
Fish oils	257,017	36,649	.....	.....	128,044	35,780	16,235	235	36,914	3,160

* Includes 23,086 thousand pounds reported by the tin terne plate industry.

The study was made in The Milwaukee Market.

Consumer Preferences in SOAP PRODUCTS

THE latest analysis of consumer preferences in the Milwaukee soap market, made as of January, 1937, by the *Milwaukee Journal*, illustrates a number of interesting trends in this key market which may indicate similar changes in consumer buying habits over the whole of the United States. The Milwaukee market numbers 188,148 families this year. Their buying habits have been studied since 1922, and the basis of the survey has been broadened and increased in accuracy each year.

Among the interesting developments this year is a reversal of the sales trend for granulated soap and soap beads. The normal course in recent years has been a steady advance in consumer popularity, but this year for the first time a lessened consumer acceptance has been encountered. Coupled with the gain in popularity of soap flakes and chips this year, it appears that some of the users of these products who turned to the new beads several years ago may now be turning back again to their old buying habits.

Another obvious development is the decline in sales of both shaving cream and brushless shave. Ordinary shaving creams have been losing ground steadily over recent years to the brushless product, but this year both suffer loss of ground as the result of introduction of electric razors which require no cream of any type.

The salient facts on the whole group of soap products, as brought out in the report, have been extracted as follows:

Toilet Soap

A STUDY of figures on toilet soap consumption indicates that five brands are competing for the major share of the greater Milwaukee toilet soap business. At the head of the list is Lux toilet soap which is in use this year by 32.9 per cent of all the families in the territory covered. This is an increase of almost 4 per cent from the previous year's record, and rep-

resents 8,000 new families using Lux this year. Palmolive is still in second place, with a distribution among 22.4 per cent of the Milwaukee population, but has dropped back moderately over the course of the year. Lifebuoy is still in third place, but like Palmolive, has lost somewhat in popularity, dropping from 24.9 per cent in 1936 to 22.0 per cent in 1937. Camay has a stronger hold on fourth place this year, having moved up from 13.0 to 16.0 per cent. Ivory again holds fifth place, with but little change.

The number of families in the Milwaukee area using toilet soap is larger this year than last, 186,831 families as against 184,494 families in 1936. Monthly consumption per family is also larger—estimated at 5.8 bars per month for 1937, as compared with 5.6 bars per month for 1936.

The following table shows the percentage of families using each brand as of January, 1937, 1936 and 1935. Figures less than one per cent are omitted.

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Lux	32.9%	29.0%	29.0%
Palmolive	22.4	25.5	26.2
Lifebuoy	22.0	24.9	24.3
Camay	16.0	13.0	12.4
Ivory	11.9	12.1	11.8
Woodbury	2.4	2.0	2.4
Sweetheart	1.6	—	—
Colgate's Cash. Bou.	1.4	1.8	—
Gimbel's Hardwater	1.2	1.8	3.4
Miscellaneous	5.0	8.0	8.9

Soap Flakes and Chips

An analysis of the soap flake and chip sales figures shows that Hanser, a local product, is still the leader, although by a narrower margin over Lux than was the case in 1936. The Hanser margin of popularity dropped from 36.4 per cent to 33.1 per cent, while Lux was registering a gain from 25.7 per cent to 28.9 per cent. Chipso, in third place, also scored a gain in distribution, moving up from 14.7 per cent to 15.3 per cent. The number of brands being offered is smaller this year, indicating that some of the brands born of the depression have not been able to survive the return of better business, with its attendant higher level of prices for soap making raw materials.

Figures for 1937 show that soap flakes or chips are now in use by 77.1 per cent of Milwaukee's 188,148 families. This represents a gain over 1936 when the comparative figure was 75.8 per cent. Monthly consumption per family has also gained, currently being 2.7 packages per month as against 2.5 packages per month in 1936.

The following table shows the percentage of families using each brand of soap flake or chip as of January, 1937, 1936 and 1935. Figures of less than 1 per cent have been omitted.

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Hanser	33.1%	36.4%	38.0%
Lux	28.9	25.7	25.6
Chipso	15.3	14.7	14.9
Ivory	10.9	10.8	8.7
Clean Quick	10.2	10.9	10.4
Crystal White	4.0	4.1	3.2
Fels Naphtha	3.9	—	—
Schuster's White World	1.6	1.9	1.9
American Family	1.3	1.4	1.3
Fom	1.2	1.6	3.1
Miscellaneous	5.6	7.7	10.5

White Laundry Soap

For a number of years white laundry soap has been losing ground in the Greater Milwaukee market. The rate of decrease, however, has slowed up considerably in the last three years. A study of the figures on allied soap products would indicate that package soap flakes or chips and granulated soap or soap beads have supplanted white laundry soap in many of the laundries in Greater Milwaukee homes.

The popularity of white laundry soap has decreased to 56.6 per cent this year as compared with 57.3 per cent last year. Following are the figures on use and non-use of white laundry soap over recent years, showing the trend:

Class Users—	Per Cent	Number
1937	56.6%	106,492
1936	57.3	106,999
1935	57.9	107,003
1934	62.0	114,565
1929	78.0	132,600

The average Greater Milwaukee family, for the year ending Jan. 15, 1937, used six bars of white laundry soap a month, a slight gain over the consumption figures for the preceding year.

P. & G. continues in the leadership of the white laundry soaps with a preference of 54.3 per cent this year, as compared to 51.6 per cent last year, thereby registering a gain of 2,500 families. Crystal White, in second place, has 25 per cent popularity as compared with 28.7 per cent last year. Ivory soap is still in third place with a gain of 4,000 families over last year's total. Ivory, which is used both as a laundry and toilet soap, has a preference of 20.7 per cent, as compared to 17.1 per cent last year. This brand's standing as a toilet soap will be found under the toilet soap classification.

The following table shows the percentage of families using each brand of white laundry soap over the past three years:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
P. & G.	54.3%	51.6%	52.9%
Crystal White	25.0	28.7	27.5
Ivory	20.7	17.1	13.9
Kirk's	1.1	1.4	2.8
Miscellaneous	2.6	4.0	5.5

Brown Laundry Soap

Brown laundry soap has maintained approximately the same degree of popularity which it enjoyed last year. This year 122,484 or 65.1 per cent of all Greater Milwaukee families used this type soap as compared with 122,685 or 65.7 per cent in 1936.

It is of interest to note that brown laundry soap has held its own during the last three years. Unlike white laundry soap, brown laundry soap has had but limited competition from flakes, granulated and bead soaps.

The Consumer Analysis re-

veals that brown laundry soap was used to the extent of 6.1 bars per month by the average Greater Milwaukee family for the year ending January 15, 1937. The average family purchased 5.7 bars per month for the preceding 12-month period.

Fels Naphtha, perennial leader, is the only one of the brown laundry soaps to record a gain in popularity this year. From its high of 70.6 per cent last year, Fels Naphtha has advanced in preference to 75.3 per cent. This represents an increase of more than 5,000 families in Greater Milwaukee using Fels Naphtha soap this year. O. K. laundry soap, in second place, shows a recession from 19.2 per cent last year to 17.1 per cent this year, a loss of 2,500 families buying this brand of laundry soap.

American Family retains third place this year with virtually the same percentage of popularity as last year. This brand is used by 6,614 or 5.4 per cent of all Greater Milwaukee families using brown laundry soap. Star laundry soap, in fourth place, shows a slight loss in popularity from 2.6 per cent last year to 2.1 per cent this year.

The following consumer preferences are reported for the various brands:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Fels Naphtha	75.3%	70.6%	65.0%
O. K.	17.1	19.2	18.5
American Family	5.4	5.5	6.3
Star	2.1	2.6	4.7
Miscellaneous	2.4	4.4	7.9

Granulated Soap

GRANULATED soap and soap beads showed a moderate decline in popularity this year, being in use in only 66.7 per cent of Milwaukee homes, as against 67.7 per cent a year ago. Monthly consumption remained constant at 4.0 packages per family. This slight decrease in popularity, coupled with the increased use of soap flakes and chips, would seem to indicate that some families who abandoned flakes and chips two or three years ago, to try granulated soap, may have gone back to package soap flakes or chips this year. It will be remembered that two or three years ago when the substantial decline in sale of chips was recorded in the Milwaukee market, it was soap granules and beads that shared much of this diverted trade.

As to brand preferences, it is noted that Oxydol, in second place a year ago, has jumped abruptly into the leading position in the market this year. It is now preferred by 53.0 per cent of Milwaukee families as against 40.2 per cent a year ago. Rinso, now in second place, dropped from 46.4 per cent to 44.7 per cent, but even if its popularity had not receded would still have been surpassed in the abrupt gain in sales registered by Oxydol. Super Suds continues to hold third place, but has dropped in popularity from 23.3 per cent to 18.4 per cent. Silver Dust, in fourth place, also shows a substantial decline in popularity, having dropped from a distribution figure of 15.7 per cent in 1936 to 6.8 per cent in 1937.

Consumer preferences for the various brands are shown in the following table:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Oxydol	53.0%	40.2%	37.3%
Rinso	44.7	46.4	50.8
Super Suds	18.4	23.3	19.3
Silver Dust	6.8	15.7	—
Palmolive Beads	5.9	8.5	15.3
Ivory Snow	1.0	3.0	4.1
Chipso Granules	1.0	1.7	2.2
Miscellaneous	1.9	1.5	1.6

Cleaners-Water Softeners

VERY little change was shown in this group as compared with figures for 1936. The number of families using cleaners and water softeners remained constant, approximating 32.2 per cent of the total group. The average monthly consumption by families using this product held unchanged at 1.8 packages per month. Climalene, the outstanding leader in this group, was in use in 54.3 per cent of Milwaukee homes, as compared with 55.4 per cent in 1936. No Name held second place with a rating of 9.8 per cent as compared with 10.0 per cent in 1936. Magnetic was again third in popularity, with 5.9 per cent acceptance as against 6.9 per cent in 1936.

Consumer preferences for the various brands are shown in the following table:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Climalene	54.3%	55.4%	56.2%
No Name	9.8	10.0	8.5
Magnetic	5.9	6.9	6.9
4-M	5.5	6.1	6.4
Melo	4.3	2.8	2.0
Rex	2.9	3.1	3.7
Lite	2.6	3.8	5.1
Steinmeyer's	1.9	1.1	1.6
Lazy Man's Cleaner	1.6	2.5	2.7
Help	1.1	—	—
Mastercraft	1.1	—	—
Hanser	1.0	—	—
Olo	1.0	1.9	1.9
Badger	1.0	—	—
Miscellaneous	8.2	9.4	8.4

Washing Powder

THE figures in this year's Consumer Analysis disclose that the recession of package washing powder during the last several years apparently has been halted. This year package washing powder is purchased by 7.7 per cent or 14,487 Greater Milwaukee consumers, practically the same number of users as in 1936.

The average Greater Milwaukee family used 2.1 packages per month for the year ending January 15, 1937, a slight increase from the average of 1.9 packages per month for the year ending January 15, 1936.

Over the period that washing powder purchasers have been decreasing in numbers, it is of interest to note that Gold Dust has shown a continuous increase in popularity. Ranking first in the preference chart and controlling three-fourths of the washing powder business, Gold Dust is now used by 76.1 per cent or 11,025 of the families buying this type of soap product. Last year Gold Dust had 70.9 per cent or 10,195 of all users. Magic, a newcomer in the brand preference chart, is in second place this year with 4.9 per cent of all users. Johnson's, in second place last year among the brands, has dropped to third place. This brand is preferred by 3.3 per cent of the

(*Turn to Page* 71)

resents 8,000 new families using Lux this year. Palmolive is still in second place, with a distribution among 22.4 per cent of the Milwaukee population, but has dropped back moderately over the course of the year. Lifebuoy is still in third place, but like Palmolive, has lost somewhat in popularity, dropping from 24.9 per cent in 1936 to 22.0 per cent in 1937. Camay has a stronger hold on fourth place this year, having moved up from 13.0 to 16.0 per cent. Ivory again holds fifth place, with but little change.

The number of families in the Milwaukee area using toilet soap is larger this year than last, 186,831 families as against 184,494 families in 1936. Monthly consumption per family is also larger—estimated at 5.8 bars per month for 1937, as compared with 5.6 bars per month for 1936.

The following table shows the percentage of families using each brand as of January, 1937, 1936 and 1935. Figures less than one per cent are omitted.

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Lux	32.9%	29.0%	29.0%
Palmolive	22.4	25.5	26.2
Lifebuoy	22.0	24.9	24.3
Camay	16.0	13.0	12.4
Ivory	11.9	12.1	11.8
Woodbury	2.4	2.0	2.4
Sweetheart	1.6	—	—
Colgate's Cash. Bou.	1.4	1.8	—
Gimbel's Hardwater	1.2	1.8	3.4
Miscellaneous	5.0	8.0	8.9

Soap Flakes and Chips

AN analysis of the soap flake and chip sales figures shows that Hanser, a local product, is still the leader, although by a narrower margin over Lux than was the case in 1936. The Hanser margin of popularity dropped from 36.4 per cent to 33.1 per cent, while Lux was registering a gain from 25.7 per cent to 28.9 per cent. Chipso, in third place, also scored a gain in distribution, moving up from 14.7 per cent to 15.3 per cent. The number of brands being offered is smaller this year, indicating that some of the brands born of the depression have not been able to survive the return of better business, with its attendant higher level of prices for soap making raw materials.

Figures for 1937 show that soap flakes or chips are now in use by 77.1 per cent of Milwaukee's 188,148 families. This represents a gain over 1936 when the comparative figure was 75.8 per cent. Monthly consumption per family has also gained, currently being 2.7 packages per month as against 2.5 packages per month in 1936.

The following table shows the percentage of families using each brand of soap flake or chip as of January, 1937, 1936 and 1935. Figures of less than 1 per cent have been omitted.

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Hanser	33.1%	36.4%	38.0%
Lux	28.9	25.7	25.6
Chipso	15.3	14.7	14.9
Ivory	10.9	10.8	8.7
Clean Quick	10.2	10.9	10.4
Crystal White	4.0	4.1	3.2
Fels Naphtha	3.9	—	—
Schuster's White World	1.6	1.9	1.9
American Family	1.3	1.4	1.3
Fom	1.2	1.6	3.1
Miscellaneous	5.6	7.7	10.5

White Laundry Soap

FOR a number of years white laundry soap has been losing ground in the Greater Milwaukee market. The rate of decrease, however, has slowed up considerably in the last three years. A study of the figures on allied soap products would indicate that package soap flakes or chips and granulated soap or soap beads have supplanted white laundry soap in many of the laundries in Greater Milwaukee homes.

The popularity of white laundry soap has decreased to 56.6 per cent this year as compared with 57.3 per cent last year. Following are the figures on use and non-use of white laundry soap over recent years, showing the trend:

Class Users—	Per Cent	Number
1937	56.6%	106,492
1936	57.3	106,999
1935	57.9	107,003
1934	62.0	114,565
1929	78.0	132,600

The average Greater Milwaukee family, for the year ending Jan. 15, 1937, used six bars of white laundry soap a month, a slight gain over the consumption figures for the preceding year.

P. & G. continues in the leadership of the white laundry soaps with a preference of 54.3 per cent this year, as compared to 51.6 per cent last year, thereby registering a gain of 2,500 families. Crystal White, in second place, has 25 per cent popularity as compared with 28.7 per cent last year. Ivory soap is still in third place with a gain of 4,000 families over last year's total. Ivory, which is used both as a laundry and toilet soap, has a preference of 20.7 per cent, as compared to 17.1 per cent last year. This brand's standing as a toilet soap will be found under the toilet soap classification.

The following table shows the percentage of families using each brand of white laundry soap over the past three years:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
P. & G.	54.3%	51.6%	52.9%
Crystal White	25.0	28.7	27.5
Ivory	20.7	17.1	13.9
Kirk's	1.1	1.4	2.8
Miscellaneous	2.6	4.0	5.5

Brown Laundry Soap

BROWN laundry soap has maintained approximately the same degree of popularity which it enjoyed last year. This year 122,484 or 65.1 per cent of all Greater Milwaukee families used this type soap as compared with 122,685 or 65.7 per cent in 1936.

It is of interest to note that brown laundry soap has held its own during the last three years. Unlike white laundry soap, brown laundry soap has had but limited competition from flakes, granulated and bead soaps.

The Consumer Analysis re-

veals that brown laundry soap was used to the extent of 6.1 bars per month by the average Greater Milwaukee family for the year ending January 15, 1937. The average family purchased 5.7 bars per month for the preceding 12-month period.

Fels Naphtha, perennial leader, is the only one of the brown laundry soaps to record a gain in popularity this year. From its high of 70.6 per cent last year, Fels Naphtha has advanced in preference to 75.3 per cent. This represents an increase of more than 5,000 families in Greater Milwaukee using Fels Naphtha soap this year. O. K. laundry soap, in second place, shows a recession from 19.2 per cent last year to 17.1 per cent this year, a loss of 2,500 families buying this brand of laundry soap.

American Family retains third place this year with virtually the same percentage of popularity as last year. This brand is used by 6,614 or 5.4 per cent of all Greater Milwaukee families using brown laundry soap. Star laundry soap, in fourth place, shows a slight loss in popularity from 2.6 per cent last year to 2.1 per cent this year.

The following consumer preferences are reported for the various brands:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Fels Naphtha	75.3%	70.6%	65.0%
O. K.	17.1	19.2	18.5
American Family	5.4	5.5	6.3
Star	2.1	2.6	4.7
Miscellaneous	2.4	4.4	7.9

Granulated Soap

GRANULATED soap and soap beads showed a moderate decline in popularity this year, being in use in only 66.7 per cent of Milwaukee homes, as against 67.7 per cent a year ago. Monthly consumption remained constant at 4.0 packages per family. This slight decrease in popularity, coupled with the increased use of soap flakes and chips, would seem to indicate that some families who abandoned flakes and chips two or three years ago, to try granulated soap, may have gone back to package soap flakes or chips this year. It will be remembered that two or three years ago when the substantial decline in sale of chips was recorded in the Milwaukee market, it was soap granules and beads that shared much of this diverted trade.

As to brand preferences, it is noted that Oxydol, in second place a year ago, has jumped abruptly into the leading position in the market this year. It is now preferred by 53.0 per cent of Milwaukee families as against 40.2 per cent a year ago. Rinso, now in second place, dropped from 46.4 per cent to 44.7 per cent, but even if its popularity had not receded would still have been surpassed in the abrupt gain in sales registered by Oxydol. Super Suds continues to hold third place, but has dropped in popularity from 23.3 per cent to 18.4 per cent. Silver Dust, in fourth place, also shows a substantial decline in popularity, having dropped from a distribution figure of 15.7 per cent in 1936 to 6.8 per cent in 1937.

Consumer preferences for the various brands are shown in the following table:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Oxydol	53.0%	40.2%	37.3%
Rinso	44.7	46.4	50.8
Super Suds	18.4	23.3	19.3
Silver Dust	6.8	15.7	—
Palmolive Beads	5.9	8.5	15.3
Ivory Snow	1.0	3.0	4.1
Chipso Granules	1.0	1.7	2.2
Miscellaneous	1.9	1.5	1.6

Cleaners-Water Softeners

VERY little change was shown in this group as compared with figures for 1936. The number of families using cleaners and water softeners remained constant, approximating 32.2 per cent of the total group. The average monthly consumption by families using this product held unchanged at 1.8 packages per month. Climalene, the outstanding leader in this group, was in use in 54.3 per cent of Milwaukee homes, as compared with 55.4 per cent in 1936. No Name held second place with a rating of 9.8 per cent as compared with 10.0 per cent in 1936. Magnetic was again third in popularity, with 5.9 per cent acceptance as against 6.9 per cent in 1936.

Consumer preferences for the various brands are shown in the following table:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Climalene	54.3%	55.4%	56.2%
No Name	9.8	10.0	8.5
Magnetic	5.9	6.9	6.9
4-M	5.5	6.1	6.4
Melo	4.3	2.8	2.0
Rex	2.9	3.1	3.7
Lite	2.6	3.8	5.1
Steinmeyer's	1.9	1.1	1.6
Lazy Man's Cleaner	1.6	2.5	2.7
Help	1.1	—	—
Mastercraft	1.1	—	—
Hanser	1.0	—	—
Olo	1.0	1.9	1.9
Badger	1.0	—	—
Miscellaneous	8.2	9.4	8.4

Washing Powder

THE figures in this year's Consumer Analysis disclose that the recession of package washing powder during the last several years apparently has been halted. This year package washing powder is purchased by 7.7 per cent or 14,487 Greater Milwaukee consumers, practically the same number of users as in 1936.

The average Greater Milwaukee family used 2.1 packages per month for the year ending January 15, 1937, a slight increase from the average of 1.9 packages per month for the year ending January 15, 1936.

Over the period that washing powder purchasers have been decreasing in numbers, it is of interest to note that Gold Dust has shown a continuous increase in popularity. Ranking first in the preference chart and controlling three-fourths of the washing powder business, Gold Dust is now used by 76.1 per cent or 11,025 of the families buying this type of soap product. Last year Gold Dust had 70.9 per cent or 10,195 of all users. Magic, a newcomer in the brand preference chart, is in second place this year with 4.9 per cent of all users. Johnson's, in second place last year among the brands, has dropped to third place. This brand is preferred by 3.3 per cent of the

(*Turn to Page* 71)

Ewing Galloway

Soap

PRODUCTION of soap powders and scouring powders in the United Kingdom continues to show a steady increase, mainly but not solely at the expense of common bar soaps. This is shown by the latest available statistics, which give a total of 100,200 tons of soap powder in 1934, as against 86,600 tons for 1933, and 22,200 tons of scouring powder in 1934, in contrast to 19,800 tons for 1933. From personal experience, I should say that this advance has been adequately maintained since then and, in all probability, has to some extent been extended.

A note on the general situation will doubtless be of interest. Briefly, the position is that the prices of raw materials, on the one hand, have of course risen considerably during the past twelve months while, on the other, competition has intensified to a degree that is truly alarming. The dominant concerns have apparently decided to engage in a spectacular private warfare in the soap flakes field, and the whole industry is suffering badly from undesirable features such as gift schemes and, above all, the tendency to cut prices. This naturally affects soap powders and, to a lesser extent, scouring powders. The worst feature of it all is the lack of a stable controlling factor in the shape of official standards. The outstanding need of the British soap industry at the present time is a collection of standards on the lines of the U. S. Federal Specifications,—and more than one soapmaker has agreed with me that it is high time that such standards as those given in the "British Government Department Specifications for General Stores. No. T.G. 23—Soaps" were made law. As things are at present, there is a distinct tendency among the smaller firms to produce soaps of a progressively poorer quality, and the concern that, in face of this general decline, can manage to consolidate its present sales as well as its future reputation, is to be congratulated.

At the same time, one must not overlook the fact that the industry as a whole is fully aware of the price-cutting and quality-cutting that has been so much in evidence, and there are growing signs of a reaction in favor of price and quality maintenance. Everything, after all, depends ultimately upon the purchaser, and he (or she) cannot be put off indefinitely with inferior products. Added to which, the high quality consistently maintained by the leading concerns in itself sets a standard for the rest of the industry.

Another problem that particularly effects the scouring powder manufacturer is compliance with the Silicosis Regulations and the provi-

Powders and Scouring Powders

Joseph M. Vallance
Warrington, England

sion of satisfactory protection for the operatives. This I shall deal with rather more fully under the heading of "Scouring Powders."

"Powdered soap" is the term applied in the United Kingdom to a straight grained soap, usually of a hard and somewhat brittle texture, without any admixture of soda, silicate, etc., and in the form of a coarse or fine powder. Such powders should contain from 87 to 97 per cent anhydrous soap, about 0.15 to 0.2 per cent free alkali, and not more than 0.1 per cent sodium chloride.

Powdered soaps of this type find their application either in the production of cleaners, abrasives, etc., or in the manufacture of medicinal products, and cosmetic and toilet preparations such as tooth pastes, tooth powders, mascaras, shampoos, foam baths and so forth. When made from cheaper raw materials, they are marketed as laundry soaps, especially in cases where the laundries prefer to purchase a guaranteed powdered soap, as opposed to a composite soap powder. This tendency, incidentally, is much more scientific from the launderer's point of view, for only pre-treatment of hard water can be regarded as satisfactory, — it being well known that the inclusion of water-softening substances in soap powders is in such cases comparatively useless, owing to the fact that the rate of reaction between the soap and the calcium salts in the water is at least as great as that between calcium salts and the water-softening substances incorporated.

The fat charge for powdered soap may consist of tallow, coconut oil, bone fat, bleached palm oil, or of other suitable mixtures of tallow, coconut oil, bleached palm oil, palm kernel oil, bone fat, white grease, etc., and/or fatty acids. Rosin is not suitable for use in this connection, chiefly because it gives rise to trouble in the grinding process. The ready solubility of coconut and palm kernel soaps makes these materials very desirable in a high grade powdered soap. If a light colored powder is desired, the kettle charge must be chosen accordingly and the presence of up to one per cent sodium chloride in the finished soap will help to prevent subsequent darkening. If, on the other hand, a creamy tint is demanded, 1 or 2 per cent of unbleached palm oil in the charge will be found very satisfactory.

The soap is salted out to insure as low a proportion of water as possible. Salt or brine is usually employed, although some makers prefer to finish with alkali. The further processing of the soap involves drying and grinding,—both of which vary considerably in accordance with output, and may more conveniently

be dealt with under the heading of soap powders.

PROBABLY more pronounced variation in quality is exhibited by soap powders than by any other soap product on the market. The actual soap content runs from 5 per cent (the remainder being alkali and insoluble fillers) up to 40 and 50 per cent. Among reputable manufacturers, 15 per cent is usually regarded as the minimum.

A good soap powder should, in my opinion, contain not less than 30 per cent fatty acids and 20 per cent soda ash. The particles should be reasonably uniform in size and shape, and should be finely divided, in order to ensure ready solubility. Unless the particles are fairly uniform, there will be a distinct tendency for "sorting" and caking to occur inside the cartons.

Other fairly common constituents of soap powders are sodium silicate, ammonium carbonate, sodium perborate, borax, sodium sulfate,—also starch, talc, fuller's earth, colloidal clays, etc. Mostly in laundry powders are to be found such additives as sodium metasilicate, trisodium phosphate, sodium hexametaphosphate (tentatively, for its utility in hard water), caustic soda (should not be, but is occasionally found in bleaching soap powders). The majority of soap powders, however, consist mainly of soap and soda, or soap, soda and silicate.

Production methods, as previously stated, show considerable variation, but the following method is practiced in medium-sized soapworks in the U. K. Briefly, the soap paste, hot from the pan, is passed to a mixer or crutcher which incorporates the silicate and soda. Subsequently the mass is run either into small frames or as a thin layer over a stone or concrete floor. If framed, the drying should take place thoroughly and evenly. In general this method is best suited to a product with a high soap content. Framing, if employed, is followed by grating or chipping, the chips being finely ground.

The floor method, although crude, is well tried and satisfactory. It is more suitable than framing for soaps containing a heavy proportion of soda and silicate, for these, when framed, become too hard for comfortable handling. Three or four days after the soap has been run over the floor, it is broken up into convenient sized lumps, by means of a spade or shovel. These lumps are turned over periodically, to insure uniform drying. Eventually the soda ash will have taken up the available water, to form soda crystals inside the soap. Some sodium bicarbonate will also be present.

After drying, the powder is passed through a preliminary breaker and finished by passing through a grinding and screening unit. One type of pulverizer has become unusually popular of late. It incorporates a worm drive which carries the powder at high speed into a hammer mill, where it is rapidly reduced to an extremely fine and homogenous powder.

Such processes are naturally modified to suit existing factory conditions. Thus, in factories that specialize only in soap flakes and soap powders of a fairly high soap content, one finds that the chilling roll and continuous dryer system is mostly employed. From the dryer the chips are fed (a) through a sacking spout into suitable containers. This in the case of laundry chips; (b) to the flake mills, for transformation into polished flakes; and (c) to the hopper of a suitable soap powder mill. The latter grinds and screens the powder, ready for filling into cartons or bulk containers.

In the course of time, various means have been tried to reduce the time of drying and improve the uniformity and solubility of the finished soap powder. Thus, the blowing of cold air through the soap mass, both before and after the addition of soda ash, has been claimed to result in a quick drying and voluminous powder. Probably the greatest commercial development in this direction is the Lamont process, as outlined in the now historic lawsuit reported in "SOAP", October, 1935.

Spray drying is also an important feature in the Löffl process, which was briefly described in "SOAP", February, 1936. The literature on spray drying is fairly comprehensive, so that there is no necessity to detail such processes here. By regulating temperature, pressure, and the amount of soap admitted to the drying chamber through the spraying nozzle, different sized granules may be obtained. Moreover, production may be vastly increased by employing some variation or other of the spraying process, as opposed to the method of drying and grinding, which is suited mainly to the factory with a small or medium output. Although a properly sprayed soap powder is voluminous, readily soluble, and "fatty" to the touch, it would not be correct to assume that ordinary pulverized powders must necessarily be characterized by grossly unequal particles, sandy touch or a dusty or gritty appearance. As they have to compete with the sprayed type, it is nevertheless essential that they should themselves maintain the highest possible standard of uniformity, solubility and so forth.

Among small soapmakers in the U. K., a semi-boiled soap is sometimes employed as a base for soap powder. In such cases fatty acids are best used in the fat charge, owing to the fact that the hygroscopic nature of the glycerin otherwise produced is likely to cause trouble in the finished product. One method of producing soap powder in this fashion calls for the saponification of the fatty acids, followed by the addition of hot soda ash solution, accompanied by constant stirring. If the soap grains or separates in a curd, the heat is removed and the crutch kept revolving until the mass begins to thicken. The hot paste is then run into frames or on to a convenient floor space. If desired, suitable waste cuttings may also be added, if first made up into a thick paste with water.

Ammonia powders experience a good deal of popularity in the U. K. Ammonium carbonate or chloride is added to the soap base during the

Set Up Specification for MILLED TOILET SOAP

COMMITTEE D-12 of the American Society for Testing Materials, charged with framing a set of specifications and definitions for soaps and detergents, met at the Hotel New Yorker, New York, March 29 and 30, under the direction of Harry P. Trevithick, general committee chairman. Specifications for milled toilet soap, soda ash, sesquicarbonate and caustic soda were adopted, and in addition the following definitions for soap terms were presented. They have been submitted to the committee for letter ballot.

1. Soap is the product formed by the saponification of fats, oils, rosin or their acids with organic or inorganic bases.
2. Commercial soap is soap with or without builders.
3. Anhydrous real soap is the product of the combination of fatty acid anhydrides and the equivalent amount of organic or inorganic base.
4. Powdered soap is commercial soap which has been reduced to small particle size.
5. Built soap is soap containing one or more builders.
6. Soap content is the quantity of anhydrous real soap present.
7. Soap powder is a water soluble powdered product, consisting of soap and one or more builders, in which the soap is a minor constituent.
8. An alkali cleaner is a water soluble product having detergent qualities but containing no soap.

The report of the committee will be presented at the annual meeting of the American Society for Testing Materials by Harry P. Trevithick of the New York Produce Exchange and B. S. Van Zile of Colgate-Palmolive-Peet Co. The next meeting of committee D-12 is not scheduled until October.

Other business at the recent meeting included discussion of a proposed specification for trisodium phosphate and methods of analysis for sulfonated oils. This material is being included in the annual report for information only and will be given further consideration at the October meeting.

The complete text of the new specification for milled toilet soap is as follows:

STANDARD SPECIFICATIONS FOR SOAP: TOILET, MILLED

A.S.T.M. Designation
Issued as Tentative—Adopted

Grade

Milled Toilet Soap shall be of but one grade.

General Requirements

Milled Toilet Soap shall be a high grade, milled cake soap, as free as possible from water, either colored or uncolored, and mildly perfumed unless otherwise specified, thoroughly saponified, well compressed in firm, smooth cakes of a size and shape specified in the contract. It should lather freely when used with cold, soft water.

Properties

The percentage of matter volatile at 105° C. will be computed on the basis of the soap as received, but all other constituents will be calculated on the basis of material containing 15 per cent of matter volatile at 105° C.

Moisture and Matter Volatile, 105° C.—Deliveries which yield more than 15 per cent of volatile matter will be rejected without further test.

—Maximum 15%

The sum of free alkali, total matter insoluble in alcohol, and sodium chloride shall not exceed.

—Maximum 1.7%

Free Alkali calculated as sodium hydroxide (NaOH).

—Maximum 0.1%

Matter insoluble in water.

—Maximum 0.4%

Unsaponified saponifiable matter (Free Fat). —Maximum 3%

Rosin, sugar and foreign matter.

—Maximum . . . . None

Anhydrous Soap.

—Minimum 83.0%

Method of Sampling and Testing

Deliveries in general will be tested by the American Society for testing materials, standard methods for the sampling and analysis of soaps and soap products, but the purchaser reserves the right to use any additional available information to ascertain whether the material meets the specifications.

Basis of Purchase

Soap, Toilet, Milled, is subject to a possible gain or loss of weight, depending on packaging, atmospheric and/or storage conditions as a result of fluctuation in the moisture content. Changes in the moisture content result in a corresponding change in the percentage of total solids and/or anhydrous soap.

The material shall be purchased by net weight provided the matter volatile at 105 degrees C. is neither above nor below 15 per cent.

Deliveries containing more than 15 per cent will be subject without further test. Settlement shall be made on the basis of a product containing 15 per cent moisture, that is .85 of a pound of non-volatile shall be considered one pound of soap.

Assuming the product meets the specifications on a calculated 15 per cent moisture and volatile basis then calculate the net weight of material to be paid for as follows:

$$\frac{\text{Net weight as received} \times (100 - \%\ \text{Loss at } 105^\circ\ \text{C.})}{85}$$

Equals net weight to pay for on 15% moisture basis

In the event the above calculation results in a figure greater than 100 per cent, due to low moisture content at the time of cutting, weighing and packing, the supplier waives the right to invoice the customer for any amount in excess of 100 per cent.

Fitch Buys Eastern Plant

F. W. Fitch Co., Des Moines, Iowa, manufacturer of shaving cream, toilet preparations, etc., has just purchased the Bayonne, N. J., plant of Lanman & Kemp—Barclay & Co. The Fitch chief chemist and master mechanic are now in Bayonne where they will superintend remodeling and installation of new equipment. Fitch expects to be in operation in the new plant by the first of July and will supply eastern and western markets from this plant.

COCONUT OIL-

Are Present Prices Too High?

THE present situation leaves little doubt that current prices for coconut oil and copra are not exaggerated, according to a review of world coconut developments during 1936 compiled by Leo Schnurmacher, Inc. of Manila. The point is emphasized in this report that the high level of coconut oil and copra prices over the second half of 1936 did not result from any acute crop shortage, but was rather the result of a greatly increased demand during the year. With every prospect that this demand will continue, and even grow greater, there is no reason, say this authority, to look for lower prices in the near future.

The signs point in exactly the reverse direction, as a matter of fact. American consumers, after purchasing only slightly less copra and coconut oil in the Philippines during 1936 than in 1935, were still so hard pressed for ready deliveries toward the close of the year that they were willing to pay substantial premiums over current prices for spot material: This would seem to indicate a marked expansion in demand. (Ed. Note: Increased U. S. demand for coconut oil in 1936 was chiefly from soapers who used 78,000,000 lbs. more than in 1935.)

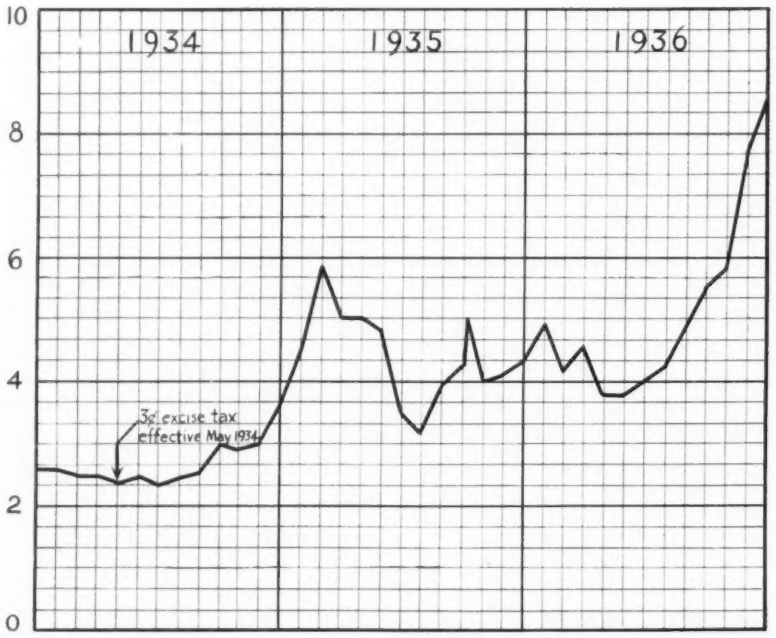
The important influences in the coconut oil and copra market during 1936 included the passage of the Bailey amendment to the United States excise tax, and the imposition of sanctions by various European countries against Italy. This latter development proved beneficial to the Philippines, in that it brought considerable business in shipment of copra to Italy. Sanctions made it difficult for Italy to supply her needs from accustomed sources, and Philippine shippers were the gainers. To them went the orders for the increased imports of coconut oil made necessary by war conditions.

Still another factor in the market was the maritime strike, paralyzing shipping at Pacific coast ports. Pacific Coast crushers had a hard time during the shipping strike, being unable to discharge their copra from the ships in port, and being unable to purchase futures due to the fact that bottoms were unobtainable.

Prices were at their highest levels of the year during December, owing to a combination of bullish factors. Earlier in the year, growers, in order to take advantage of the higher prices at the earliest possible moment, had stripped the trees. They harvested green nuts and converted them into low quality copra through the early months of the year

Price of Coconut Oil, 1934-1936

In cents per pound, c.i.f. Atlantic Coast.
Does not include 3¢ Excise Tax.



in an attempt to rush their crop to a high priced market. This practice invariably results in injuries to the trees and lowers their bearing capacity. The result was that by December reports were current that at least for the first half of 1937, there would very definitely be a shortage of copra.

To make matters worse, a fairly heavy typhoon swept across Southeastern Luzon on December 2nd. It did considerable damage to coconut groves, especially in the provinces of Albay, Sorsogon and Camarines, which had just begun to recover from the severe typhoons of 1934.

It is a combination of all these factors that pushed coconut oil up to a price of eight to nine cents a pound late in 1936, and that have kept it there through the early months of 1937 in spite of an apparently lessened demand. When substantial buying interest is again expressed in the market, further upward movement is held to be entirely probable.

Total Copra Crop of the Philippines For the Year 1936		Total Metric Tons
Copra exported		281,370
Oil exported	158,802 tons	
Oil consumed locally	34,534 tons	
Total Coconut Oil	193,336 tons	
at 58% average extraction equivalent to Copra		333,338
Desiccated Coconut exported 36,064 tons equivalent to Copra		43,349
Total		658.057
Copra: Estimated Stocks on Jan. 1st, 1936	87,254	
Oil: Estimated Stocks on Jan. 1st, 1936: 14,063 tons equivalent to Copra at 58%	24,248	111,502
Total		546,555
Copra: Estimated Stocks on Dec. 31st, 1936	51,962	
Oil: Estimated Stocks on Dec. 31st, 1936: 9,909 tons equivalent to Copra at 58%	17,084	69,046
Total		615,601
Less Copra imported into the Philippines		689
Approximate Crop of Copra during 1936		614,912

Estimated Values of Coconut Oil and Copra exported from the PHILIPPINE ISLANDS

	1936 Metric Tons	1936 Value	1935 Metric Tons	1935 Value
Copra	281,370	$14,490,555	256,683	$11,067,996
Coconut Oil	158,802	13,799,100	163,824	12,280,768

Estimated Stocks on hand per Dec. 31	Metric Tons 1936	Metric Tons 1935
Copra in Manila and Provincial Ports	51,962	87,254
Coconut Oil in Manila and Cebu	9,909	14,063

World Production of Copra and Coconut Oil in the Five Principal Producing Countries

	Year	Area planted Hectares	Number of Bearing Trees (1000's)	Copra Exported Metric Tons	Coconut Oil Exported Copra Equivalent Metric Tons	Local Consumption Copra Equivalent Metric Tons	Total Production Copra Equivalent Metric Tons
Netherlands Indies	1935	**857,443**	**101,123**	485,394	27,586	**295,517**	**808,497**
Philippine Islands	1936	608,360	75,414	**281,370**	**273,796**	**89,991**	**688,506**
British India	1934	567,000	**74,878**	...	...	**599,024**	**599,024**
Ceylon	1935	486,000	51,125	49,541	97,163	**275,000**	**466,461**
Malaya	1935	243,393	24,039	125,162	62,907	**99,000**	**289,078**

Figures in bold represent estimates of Leo Schurmacher, Inc., Manila. There are 29 other producing countries, with a production for the years indicated of approximately 410,000 copra equivalent metric tons. Added to the above this gives a total world production of 3,263,480 copra equivalent metric tons.

Soap and Scouring Powders

(*From Page* 30)

grinding process. Various other materials previously mentioned may also be added as required, during the grinding. "Oxygenated" soap powders, based on the incorporation of sodium perborate, are also in considerable demand. Perborate is best added to a soap of the coconut-tallow type, incorporating about 35 per cent fatty acids, together with sodium silicate, which to some extent helps to stabilize the perborate. The percentage added runs from 10 to 15, it being mixed in with the well-dried soap powder just prior to packaging.

SCOURING powders have a ready and expanding sale. They vary considerably in constitution, as well as in their physical characteristics. While a few are coarse and gritty, however, the majority are of consistently good texture and appearance, characterized by mild abrasiveness and well defined, though secondary, detergent properties.

Some scouring powders contain no soap, being based, for example, on amorphous silica, white tripoli, trisodium phosphate, and modified soda, the last mentioned product being a combination of sodium carbonate and bicarbonate. Moreover, some so-called soap scouring powders contain so little soap (no more than 2 or 3 per cent, on an anhydrous basis), that they should, by rights, also be included in this group.

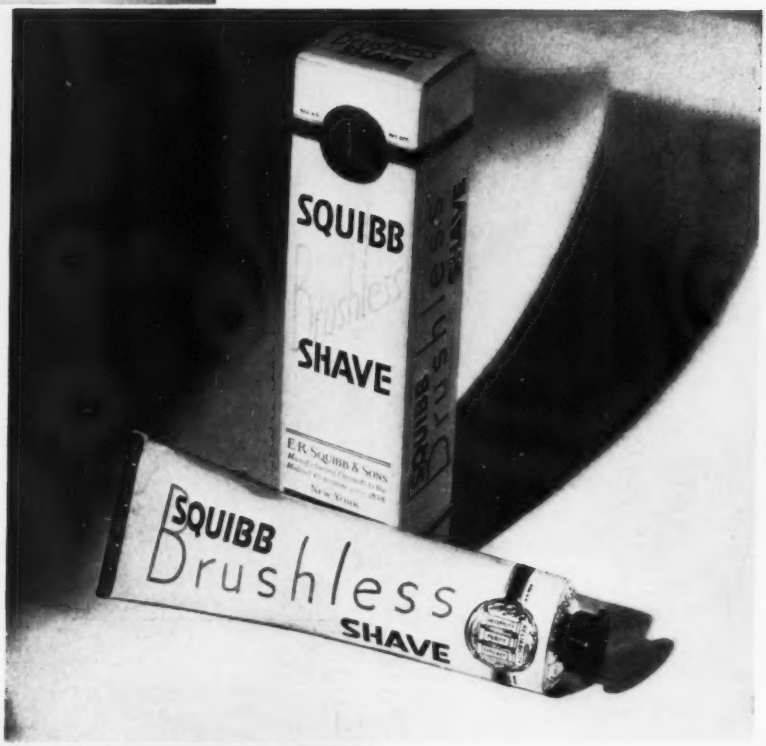
A scouring powder, to be effective, calls for a suitable combination of a cheap, filled soap powder, a mild but serviceable abrasive, alkali, and (possibly) a small proportion of bentonite or other colloidal clay. Thus a typical English scouring powder consists approximately of the following: soap powder (20 per cent anhydrous soap), 27 parts; white abrasive silica (120 mesh), 54 parts; tripoli, 8 parts; soda ash, 11 parts.

The abrasives most commonly employed are ground silica, powdered pumice, fine sand, ground feldspar, ground marble, slate refuse.

(*Turn to Page* 103)

New Products

Patrick's Glass Polish, a new item which is reported going well on the Coast. Manufactured by Frank E. Patrick of San Francisco. Bottle equipped with dispensing closure by Phoenix of Chicago. Heetfield Photo.



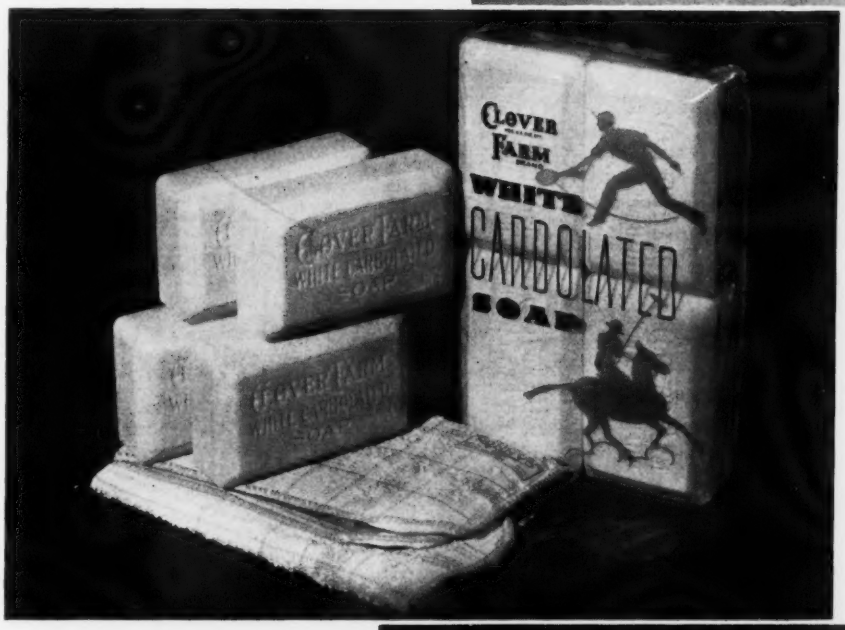
Squibb's Brushless Shave,—the new companion product to Squibb's shaving cream.—packaged in white tube, decorated in red, gold, and black in the Squibb motif. Retails at 29c.

Red Devil pot cleaners made of copper turnings in a variety of styles and attractively packaged in bright red. A new item from Landon P. Smith, Inc., Irvington, N. J.

and

Packages

The Slick Shine polish family in new dress. The products of the Slick-Shine Company of Newark, N. J. Phoenix cone-top cans and closures. Bottles and jar by Hazel-Atlas. Heetfield Photo.



White carbolated soap,—a new product which is being marketed by the Clover Farm Stores of Cleveland. Carbolic odor,—four cakes with face cloth to a package.

Iowa Soap Company of Burlington brings out a new soap containing Vitamin F, a pink milled bar, four to the package with a Cannon face cloth, all in cellophane.

TURNER

CHEMICALS

CAUSTIC POTASH

CAUSTIC SODA

STEARIC ACID

TRI-SODIUM PHOSPHATE

CARBON TETRACHLORIDE

LIQUID CAUSTIC SODA

TANK TRUCKS—DRUMS

Local delivery tank truck service throughout the Metropolitan New York area.

JOSEPH TURNER & COMPANY

RIDGEFIELD, N. J.

83 EXCHANGE PL.
PROVIDENCE

630 FIFTH AVE., NEW YORK

40TH ST. & CALUMET
CHICAGO

NEWS . . . . . .

Offer Powdered "Gre-Solvent"

Archie Tarr has joined Utility Co., Inc., New York, makers of "Gre-Solvent" products, as advertising and publicity manager. A. Ray Arany has also become associated with Utility Co. as metropolitan New York sales manager. Both men have been well known in the trade for a number of years. Utility Co. has just announced a new product—"Powdered Gre-Solvent" as distinguished from the cleaner in the smooth paste form. A newspaper campaign embracing leading publications and featuring both "Gre-Solvent" and the new "Powdered Gre-Solvent" has been launched in the greater New York metropolitan area. This is being supplemented by intensive consumer sampling.

D'Arcy Cooper on World Trade

Francis D'Arcy Cooper's address at the annual meeting of Lever Brothers, Ltd., recently held at Port Sunlight, England, contained an encouraging account of the company's present position and a plea for the reduction of trade tariffs and barriers. Mr. Cooper pointed out that in consequence of the rapid rise in commodity prices producers of primary products were again in the market for manufactured goods. While he considers that the world economically has emerged from depression and has embarked on a period of rapid development, he cited one or two facts which should cause a survey of the present position to be tempered with caution.

"Markets," he said, "are walled in by tariffs and restrictions, many of which sprang up during the crisis and have been built up as a consequence of political fears or ambitions. Further, a part of the prosperity of the individual domestic market is the result of vast and ever-growing expenditure on armaments, and this unhealthy stimulus is directing industry to unproductive channels that may lead to unbalanced conditions of employment and trade."

Named to Sales Post

G. Richard Gottschalk has just been named assistant sales manager by Cincinnati Soap Co., Dayton. In

his new capacity he will serve under Max Rosenthal, sales manager of the company. Mr. Gottschalk was formerly assistant to Breckinridge Jones, vice-president and general manager. Prior to that he served as credit manager.

C-P-P Wins Cashmere Case

Colgate - Palmolive - Peet Co., Jersey City, N. J., was awarded exclusive right to the "Cashmere" trademark by the United States District Court for the Southern District of New York in a recent decision. Oralee Freres, Inc., New York, was defendant in the action. The decree gives Colgate a perpetual injunction restraining Oralee Freres from use of the "Cashmere" mark.

Woodbury Stimulates Sales

John H. Woodbury Co., New York, will give away 1,000 Longine wrist watches in a radio contest to further sales of "Woodbury's" facial soap. Half of the watches will go to consumers and half to their dealers. The contest calls for a best answer to the sentence beginning "I like Woodbury's Soap best because . . . ."

Crystal White Offers Premium

Crystal White Soap Co., Berkeley, Calif., is offering a 14-karat gold plate birthstone ring to purchasers of "Crystal White" laundry soap, in extensive newspaper advertising. The ring is given for twenty soap wrappers.

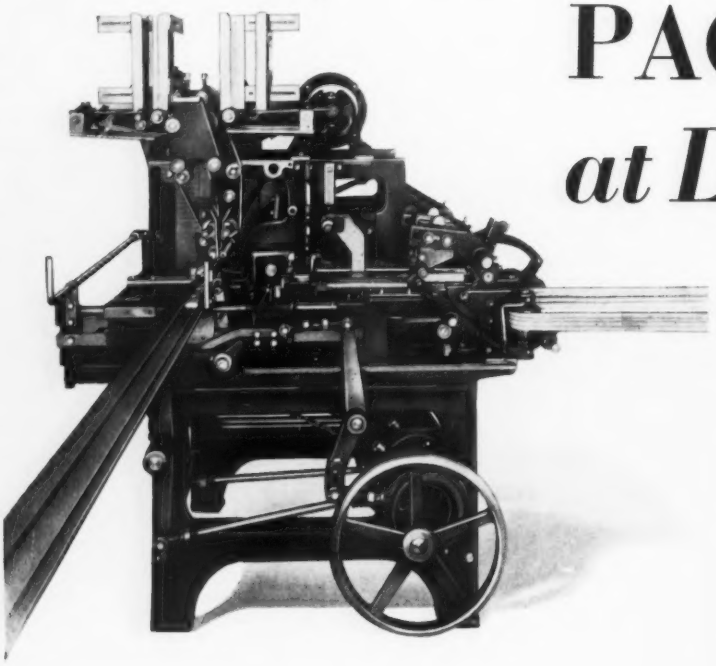
Offer New Tar Remover

Curran Corp., Somerville, Mass., maker of "Gunk" degreasing compound, has just introduced a new product under the name "Tarlene." It is a water-white solvent recommended for use in removing hardened tar specks from automobile bodies.

Famous Soap Ad Picture

The subject of the most famous of all British soap advertisements has been painted again and the portrait is to be hung in the Royal Academy Exhibition, London, during May. He is Vice-Admiral Sir William Milbourne James, K.C.B., Lord Commissioner of the British Admiralty and Deputy-Chief of the Naval Staff. The last time he was painted was 50 years ago, as a golden-haired boy gazing at the soap bubbles he had blown. The artist was his grandfather, the great Sir John Millais, most famous of Victorian painters. The picture was entitled "Bubbles" and was purchased by A. and F.

DISTINCTIVE PACKAGING *at Lowest Cost*



IN selecting a wrapping machine, soap manufacturers demand two essentials:
(1) ability to produce a distinctive and individual package that will attract attention and reflect quality;
(2) utmost economy of operation.

The fact that our Model S is used by practically all the leading toilet soap manufacturers in the country is proof that this machine definitely meets these requirements. It indicates, moreover, that the Model S is extremely versatile and can be adapted to many different and individual styles of packaging.

Actually twice as fast as former machines it has replaced, the Model S turns out 150 perfectly wrapped cakes per minute. Saves labor cost, uses minimum amount of material, and its compact construction saves floor space.

It is equally efficient in handling "Cellophane," glassine, and many other kinds of wrapping materials. It can be equipped to insert cardboard or circular between the inner and outer wrapper. By means of adjustments provided and the use of interchangeable parts, more than one size can be wrapped on the same machine, if desired.

SPECIAL MACHINES

In addition to the widely used Model S, we have built special machines to meet particular requirements. Our long experience in serving soap manufacturers and our complete facilities should prove valuable to you in solving your packaging problems. Consult our nearest office.

PACKAGE MACHINERY COMPANY • Springfield, Mass.

NEW YORK - CHICAGO - CLEVELAND - LOS ANGELES
Mexico, D. F., Apartado 2303 - Peterborough, England: Baker Perkins, Ltd.
Melbourne, Australia: Baker Perkins Pty., Ltd.

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Pears, Ltd., soap manufacturers, who still possess it. Pears distributed thousands of copies of this picture as an advertisement, and it became the best-known work of art of the nineteenth century.

Vice-Admiral James's face is still handsome, his hair (now gray) still wavy, his complexion fresh and rosy as before, but the right eye droops in the British naval tradition. The word "Bubbles" has pursued him all his life, and in the navy he is called "Bubbles James." He says he hardly remembers sitting for Millais. Douglas Wales is the painter of the new picture.

◆

Manhattan Soap Limits Claims

Manhattan Soap Co., New York, has signed a stipulation with the U. S. Federal Trade Commission agreeing that it will desist from using fictitious prices on cartons or boxes in which its soap is packed or on the products themselves, and will stop using the word "Doctor" or abbreviation "Dr." to imply that its products are made in accordance with the prescription or under direction of a doctor, or contain special scientific features resulting from medical advice or service. The respondent agrees to cease using the word "medicated," to imply that its products have been treated or impregnated with medicine, or the word "health," to describe soap products so as to imply that they contain ingredients which give the user certain benefits beyond those obtained from using any toilet soap, when these are not the facts. The soap company also agrees to stop using in advertising matter representations to the effect that its soap is of a dollar quality, contains no cocoanut oil, or has extra beneficial qualities for the skin, when these assertions are not warranted by the facts.

◆

Dr. Young Married

Dr. H. Herman Young, son of C. F. Young, president of the Davies-Young Soap Co., Dayton, Ohio, was married on April 10 to Miss Virginia Standish at St. Paul's Episcopal Church of Dayton. Russell H. Young, brother of the groom, was best man. Dr. and Mrs. Young will reside in Rochester, Minn. where Dr. Young is doing research work at the Mayo Clinic.

◆

C-P-P 1936 Earnings Higher

The annual report to stockholders for 1936 as submitted by President S. Bayard Colgate, showed net profits of Colgate-Palmolive-Peet Co., Jersey City, to be $4,218,954. Increased sales for that year amounted to $89,631,402.

"While this is only slightly better than the results of the preceding year," Mr. Colgate said, "the major portion of the 1936 profits were earned during the second half of the period. The decline in prices of fats and oils which took place during the first half of the year came to an end towards the close of that period, and prices have since returned to their former high level. This has brought about increases in sales prices, greater sales volume and better profits. Net sales for the year increased $7,947,772 or 9.73 per cent over the preceding year."

Mr. Colgate stated further that a total tax bill of $7,067,577 was paid in 1936. This amounted to an increase of $707,274 in taxes over those of the previous years. The total tax bill for 1936 was equal to $3.61 per share of common stock.

◆

Lever Reports Record Profit

Lever Brothers, Ltd., London, England, is paying a dividend on ordinary stock of 15 per cent for 1936, the same as for each of the preceding four years. Lever's net profits reached a new high level last year at £7,048,862 ($35,244,310), an increase of £97,675 ($488,375). General reserve now totals £2,250,000 ($11,250,000).

◆

New Naphthenic Soaps

S. Schwabacher & Co., New York, offer two new varieties of naphthenic soap. One of these is a soluble residue type, forming a transparent solution with hot water. The second type is insoluble forming a slightly opaque solution when dissolved in hot water.

Make Public Dionne Contracts

Contracts entered into on behalf of the Dionne quintuplets have been made public in the Ontario legislature. The list of contracts showing the company, amount received at January 31, 1937, and in brackets contract date and date of its expiration, includes the following:

Colgate Palmolive Peet, $8,750—Advertise use by the quintuplets of Colgate Ribbon and Dental Cream (July 2, 1936 and July 2, 1939) Flat rate contract, $27,500.

Lehn and Fink, $5,850—Advertising of Hinds honey and almond cream (January, 1937 and August 15, 1939). Renewal of February 8, 1935, contract.

Lever Bros., $2,500—Advertise use of Lux for washing children's clothing (November 28, 1936 and January 1, 1940). Flat rate contract, $25,000.

Colgate Palmolive Peet Co, $8,750—Advertise use by quintuplets of Palmolive soap (July 2, 1936 and July 2, 1939) flat rate contract, $27,500.

United Drug Co., $2,125—Advertise use by quintuplets of Pinetest cod liver oil and First-Aid absorbent cotton (April, 1935 and July 26, 1937) Flat rate contract, $2,125.

◆

Palmolive Ex-Sales Mgr. Dies

A. M. Craigie died of pneumonia last month in his Chicago home. Mr. Craigie, 58 years old, was associated with the Palmolive-Peet Co., Jersey City, for 25 years, serving most of the time as general sales manager.

◆

Fei Corp. Moves

Fei Corp., Pittsburgh, maker of Dr. Ellis' soap products for the hair, moved May 1 to new quarters at 1125-B Penn Ave. The company was formerly located at 600 Second Ave.

◆

Barton Chemical Moves

Barton Chemical Co., Chicago, cleaners and water softeners, moved recently into a building which the company has just acquired at 3909 So. Langley Ave.

FOR YEARS our Rhodinol Coeur, Geraniol Coeur, Linalool Coeur have been the standard by which discriminating buyers judge quality.

Now PHENYL ETHYL ALCOHOL COEUR joins this merit class.

Don't take our word for its superiority but test it yourself. *First for odor.* You will find it totally free from any unpleasant impurities.

Then the chemical analysis. This shows no trace of esters, no chlorine, a specific gravity of 1.0230, a refractive index of 1.5327 and a solubility of 1 in 50 parts of water. This extremely high solubility is the concluding proof of its extreme purity.

No other commercial product equals those tests; we know of only one imported product that equals them but its price is far higher.

PHENYL ETHYL ALCOHOL COEUR *stands supreme and is offered at the price of the ordinary quality.*

van Ameringen-Haebler, Inc.

315 FOURTH AVENUE, NEW YORK

Chicago *Toronto* *Los Angeles* FACTORY, ELIZABETH, N. J.

Manufacturers and Importers of Aromatic Essentials

AROMATIC CHEMICALS—ESSENTIAL OILS—FLAVORS—PERFUME SPECIALTIES—

Court Reverses Decision in Spray Soap Case

REVERSING a previous decision of the U. S. District Court for the Northern District of Indiana, the U. S. District Court of Appeals in Chicago has just ruled that "Rinso," product of Lever Bros. Co., infringes the Lamont patent for which Colgate-Palmolive-Peet Co. and Procter & Gamble Co. are joint licensees. In its announcement of the reversal of the original decree, the court provides for an accounting as to past infringements and has issued an injunction providing against future infringement of the Lamont patent.

The original basis for the case was—the Lamont patent, U. S. No. 1,652,900, issue to Dallas R. Lamont, December 13, 1927, who was then employed by Industrial Spray Drying Co. An exclusive license for use of the process had been acquired by a predecessor of the present Colgate-Palmolive-Peet Co., and Procter & Gamble Co. had later acquired a half interest in the patent, allowing them to use the process. It was charged in the suit that subsequent to issuance of the patent Lever Bros. Co. changed their process for the manufacture of "Rinso" and that by so doing they infringed the patent claims.

In the original decision in the suit, handed down September 14, 1935, by Federal Judge Thomas W. Slick in the U. S. District Court for the Northern District of Indiana, "Rinso" was declared not to infringe either the process or the product covered by the Lamont patent. The patent itself was not held invalid, although it was interpreted by Judge Slick in a narrow sense.

Judge Slick pointed to the differences in temperatures of soap at the spraying nozzle and also to the differences in temperature of the air currents through which the sprayed soap falls, declaring that the Lamont patent details the best specifications for these parts of the process.

"The question then arises," he continued, "how nearly may these variables be approximated without infringing? The rational answer would seem to be that they may be approximated within a reasonable degree."

In the latest decision, by the U. S. Circuit Court of Appeals, handed down in Chicago, April 8, 1937, these findings of Judge Slick are reversed. Circuit Court Judges Evans and Sparks and District Judge Lindley held the process claims to be infringed by the process followed by the Lever company at its Hammond plant in making "modern" or "current" "Rinso."

The decision held "Rinso" of character offered as plaintiff's exhibit 23 infringes the Lamont product claims. The rule laid down in the opinion must determine whether the Lamont product claims are infringed by other Lever products, it was held. The district court decree was reversed with directions to enter one granting an injunction against further infringement of claims 1 to 9 of the patent and an accounting for past infringement.

The court stated that the final conclusion turned on "the degree of equivalency which should be granted elements of the product, and steps of the process claims." The degree of equivalency depends largely, it said, on "(a) the place we give Lamont's discovery in laundry soap art; (b) language of claims and specifications; (c) object and purpose of steps in consummation of the 'Lamont idea.'"

"Rinso," the court found apparently varies in character. The decision said that the process might be followed and yet the product might not be up to the possibilities of a better or a more complete following of the teachings of the process claims. The conclusion must be and is based, asserted the decision, on the substance of the teachings, not solely on the words used. It said restrictive words must be given their true meaning, but words ordinarily restrictive in their meaning may not be intended to tie the patent by inelastic bands. When descriptive words are somewhat general, we should accord them reasonable, rational resiliency, it said.

It was pointed out that by imperfectly practicing the teachings, the Lever company might have produced a soap which would not respond to the language of the product claims. It could not, however, avoid infringing of product claims by imperfectly practicing the process, it was emphasized.

Hewitt Moves Offices

Hewitt Soap Co., with plant located at 415 S. Linden Ave., Dayton, Ohio, has removed its general offices to 136 S. Ludlow St., Dayton, in the downtown section.

General Buys Mechling

General Chemical Co., New York, a subsidiary of Allied Chemical & Dye Corp., has just purchased the business and assets of Mechling Bros. Chemical Co., Camden, N. J. The concern will be operated in the future as a division of General Chemical Co. Benjamin S. Mechling and Edward A. Mechling, president and vice-president respectively of Mechling Bros. Chemical Co., will continue actively in the business. No change in personnel is contemplated. The Mechling business was started in Philadelphia shortly after the Civil War by two brothers, William H. and Benjamin F. Mechling. They did a jobbing trade at first, in drugs, chemicals spices, etc. They later started the manufacture of lye which was sold under their own brand. Production was subsequently expanded to include epsom salt, lime-sulfur solution, hyposulfate of soda and silicate of soda, which is the principal product of the company today. Present plants are located at Camden, N. J., and Medford, Mass.

Packer Changes Name

Packer Manufacturing Co., Inc., New York, has changed its name to Packer Tar Soap, Inc.

THESE 3 NEW SOP-O-ZON DISPENSERS

REG. U.S. PATENT OFFICE

with their new no-splash, no-drip, self-cleaning no clog valves made from the finest bronze—nickel silver—stainless steel—each material tested and found perfect for its particular function—delivering the soap directly into the palm of the hand, express your idea of the *perfect soap dispenser.*

Model 7-A

Write For Returnable Sample

MODEL 7-A, the standard glass jar type with its modern, streamlined, solid bronze, chromium plated body—theft-proof universal bracket which may be installed with either screws or toggle bolt and which allows the dispenser to be removed for washing and cleaning without disturbing the wall bracket—its lock top and crystal clear, practically indestructible glass jar or colored jar at slightly extra cost—make it the "final word" for this type dispenser.

Models 10-A 12-A

MODEL 10-A, holding a full pint or the MODEL 12-A, holding over a quart—more than twice that of any other individual dispenser on the market—with their gleaming white porcelain-on-steel finish—their cast bronze cylinders permanently fastened at the bottom and bearing against the wall, relieving all strain on the body—their theft-proof fastening to the wall and lock tops make them "ideal" for schools, service stations, bus terminals, railway cars and stations or any other place where an indestructible, heavy duty dispenser is so necessary.

BOBRICK MANUFACTURING CORPORATION

NEW YORK CITY—215 Fourth Ave.

LOS ANGELES, 111-117 Garey St.

Markets New Shaving Cream

A new shaving cream, trademarked "Blue Beard," has been placed on the market by Bectin-Seymour, New York. The cream is offered in both brushless and lather types and will be advertised by radio and counter cards.

Argue Coconut Oil Tax Case

The coconut oil tax refund cases of Cincinnati Soap Co. and Haskins Bros. Co. were argued before the U. S. Supreme Court on April 1 and 2. The issue is the constitutionality of the processing tax on Philippine coconut oil. The case for Cincinnati Soap Co. was presented by Alfred Bettman of Cincinnati, former assistant to the Attorney General of the United States. The case for Haskins Bros. Co. was presented by Frederick H. Wood of New York, who was attorney for the Schechter brothers in the NRA case, and who has argued a number of other important cases before the Supreme Court. The reply for the government to both arguments was presented by Robert Jackson, Assistant Attorney General of the United States. Supreme Court decisions are handed down on Mondays, and companies interested may therefore wish to follow closely the Monday sessions of the Court until the decision has been announced.

Ralph S. Hirst Dies

One of the founders of the Camden & Philadelphia Soap Co., Ralph S. Hirst, died recently at his home in Berkeley, Calif. In 1917 Mr. Hirst moved to California and erected a plant for Smith, Kline & French Co., a Philadelphia drug house with which he was connected.

Amend Maine Bill

Maine House Bill No. 40, limiting the sale of drugs to drug stores, has been amended and in its new form has been renumbered House Bill No. 1787. The amendment provides that the provisions of the restrictive section "shall not apply....to Paris Green, London Purple or other poisonous preparations or compounds used for the destruction of bugs, beetles, insects, slugs, grubs and fungi provided that the package is properly labeled." As bacteria are properly classified as fungi, this would apparently exempt both insecticides and disinfectants from the provisions of the bill.

TGA Convention May 25-27

With the Hotel Biltmore, New York, the scene of the coming annual convention of the Toilet Goods Association, May 25-27, plans for an interesting session have been announced by Charles E. Kelly, Hagerty Bros., New York, chairman of the committee in charge of the meeting. Business sessions will consider such topics as taxation, advertising control, trade practices and prospective legislation. The entertainment program includes a theater party and supper dance the evening of May 25, a golf tournament May 26, and the annual banquet at the Biltmore the evening of May 27.

"Gunk" Advances Mitchell

W. H. Mitchell of the Curran Corp., Somerville, Mass., manufacturer of "Gunk" degreasing compound, has been promoted to the position of assistant sales-manager of the automotive sales division. Mr. Mitchell was formerly factory demonstrator for the company.

Chicago Golf Season Opens

The first golf tournament of the 1937 season of the Golf Auxiliary of the Chicago Drug and Chemical and the Chicago Perfumery, Soap and Extract Associations will be held May 11 at the Glen Oak Country Club. Plans for the season's tournaments are being completed by the committee headed by A. J. Andersen and George Epstein.

Offer Premium with Bab-O

In its advertising of Bab-O, in Oakland, Calif., B. T. Babbitt, Inc., New York, is offering a garnishing set, consisting of a garnisher, parer, corer, etc., for 25 cents accompanying the label from one can of Bab-O.

"Surety" Hand Soap Distributor

Surety Manufacturing Co. of Chicago has made E. L. Burr, located at 1824 E. Fifth St., Dayton, distributor for its "Surety" hand soap, a powdered hand soap for mechanics and other workers.

New Window Shade Cleaner

"Ramco Oil Window Shade Cleaner" is a new product recently put out by R. A. Myers & Co., St. Paul. The product is also useful as a cleaner for enamel fixtures and painted walls. It comes in liquid form and has been selling very satisfactorily.

Perfumers' Party in Chicago

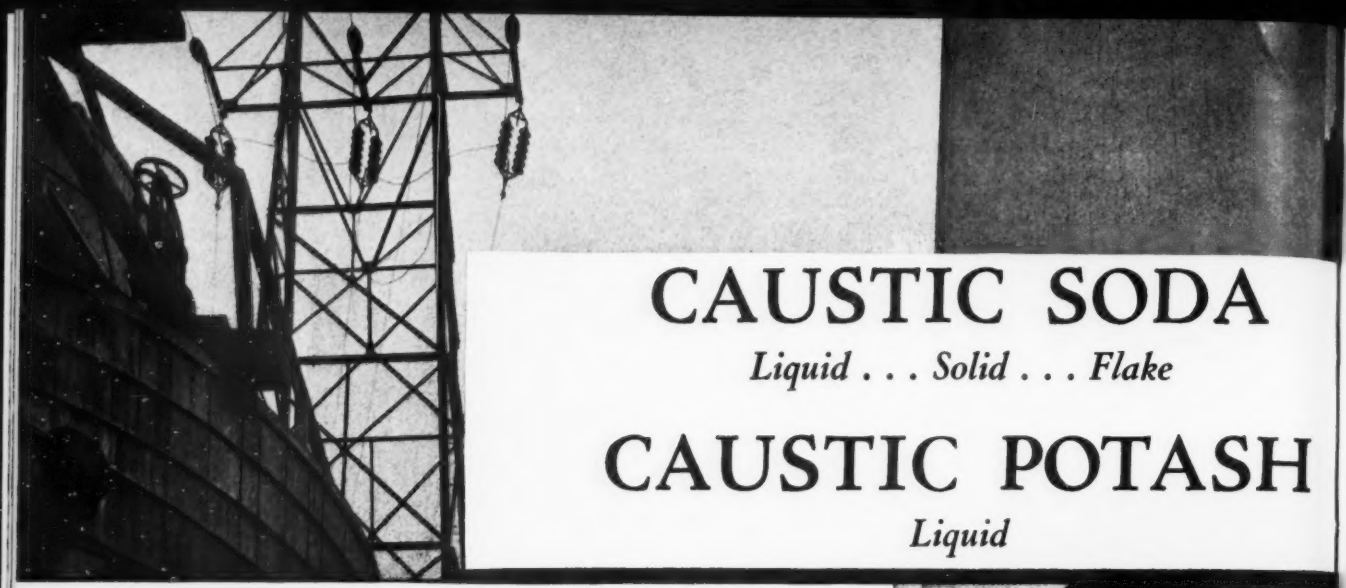
With three hundred members and guests attending, the spring party of the Chicago Perfumery, Soap & Extract Association was held in the ball room of the Knickerbocker Hotel, Chicago, April 8th. Following a buffet dinner, a "Monte Carlo Night" program was put on, using stage money. J. E. Henley proved to be the best gambler and won first prize. Second prize went to Dr. S. J. Harvey and third prize to Al. Burgh. Arrangements for the party were handled by Arthur F. Frantz and Walter H. Jelly.

Orem duPont Sales Mgr.

Edward A. Orem has just been made sales manager of acids and heavy chemicals for the Grasselli Chemical Department of E. I. du Pont de Nemours & Co., Wilmington. His headquarters will now be in Wilmington. Mr. Orem has been with du Pont since 1914, and from 1924 to 1929 served as New York branch sales manager for du Pont acids and heavy chemicals. Edward Sterk has been made assistant manager of the Grasselli agricultural insecticide and fungicide division. He will also make his headquarters in Wilmington.

"Foaming Oil" New Shampoo

L. B. Laboratories, Los Angeles, are marketing a new product called "Foaming Oil Shampoo." The product is of the soapless type.



CAUSTIC SODA

Liquid . . . Solid . . . Flake

CAUSTIC POTASH

Liquid

ARBON TETRACHLORIDE

99.995%

"EARLIEST PRODUCTION IN THIS COUNTRY"

TRI-SODIUM PHOSPHATE
DI-SODIUM PHOSPHATE

ALSO MIXED DETERGENTS COMPOUNDED
TO MEET USERS' OWN SPECIFICATIONS

TETRA SODIUM PYRO PHOSPHATE

(Neutral Pyro)

AN OPPORTUNITY TO SUBMIT SAMPLES AND QUOTATIONS IS SOLICITED

WARNER CHEMICAL COMPANY

Pioneer Producers since 1886

STANDARD WARNER CHEMICALS

CHRYSLER BUILDING NEW YORK CITY
155 EAST SUPERIOR STREET, CHICAGO
70 RICKARD STREET, SAN FRANCISCO

DIVISION OF WESTVACO CHLORINE PRODUCTS

New Dry Cleaning Soap

Riverside Manufacturing Co., St. Louis, has just introduced a new dry cleaning soap under the name "Vee-Three," which is a paste type soap for use in the filter process. It is said to be odorless, allows cleaners to break, does not jelly caustic clarified solvent nor stick in fabrics.

Soap Meeting Postponed

The general meeting of the soap industry which was to have been held in Chicago April 22, has been indefinitely postponed. It was found impossible to have all interests represented at the date set, making the postponement necessary. Another meeting may be called at a later date.

Soaps at World Fair

The soap and cosmetic industry will share with the clothing industry one of the fourteen major areas at the New York World's Fair which will open early in 1939. At recent fairs there have been no special sections set aside for soap and cosmetic firms, with the result that there have been few exhibitors. At the Philadelphia Centennial back in 1876, however, fifty-eight soap and cosmetic concerns exhibited, of which seventeen were domestic. Among the exhibitors were Colgate & Co., Enoch Morgan's Sons and J. B. Williams & Co. Enoch Morgans Sons were commended for the introduction of "a new and cheap detergent, applicable with hot, cold, soft, hard or sea water." Several firms were commended by the judges for displaying soaps which were "beautiful imitations of fruits."

New Bleaching Earth Mill

Bleaching earth, for use in the refining of petroleum and vegetable oils, is now being produced by Tennessee Bleaching Clay Corp., Paris, Tenn., who have just opened a new plant. Officials of the company are J. K. Dick, president; Sam Kohn, vice-president, and C. E. Hastings, secretary-treasurer.

Columbia Alkali Names Shaw

W. I. Galliher, director of sales for Columbia Alkali Corp., Barberton, Ohio, announces the appointment of A. E. Shaw as district sales manager for northern Ohio with offices at 3849 Hamilton Avenue, Cleveland. Mr. Shaw has devoted his time since he was discharged from the Army in 1919 to selling, having held several responsible positions before joining the Columbia organization in 1932. During the past few years Mr. Shaw has devoted considerable time to promotional work on calcium chloride and more recently to the distribution of Columbia's full line of products.

Several new products have recently been added by Tamms Silica Co., Chicago. These include "Tamms" linoleum paste and "Prim," a new rug and carpet shampoo. The latter product is sold in paste form and is mixed with water for use.

A concern in Trinidad, British West Indies, is interested in securing an agency for sale of American toilet soaps. Interested parties may communicate by addressing the U. S. Bureau of Foreign & Domestic Commerce, Washington, D. C., mentioning inquiry number 2896.

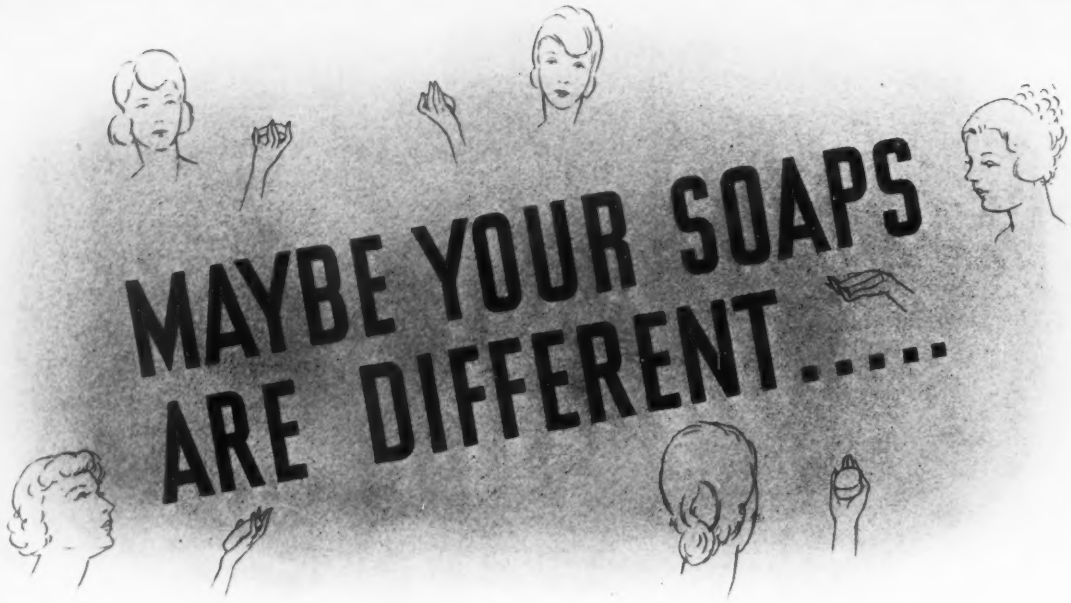
Ivory Leads in Cleveland

Ivory soap appears to be the leading toilet soap seller in the Cleveland market, according to a recent survey made by the Cleveland *Press*. Ivory was followed closely by Lifebuoy, Lux and Palmolive. The complete list of toilet soap brands, together with distribution percentages as indicated in the survey, follows:

BRAND	NUMBER OF HOMES 1936	1935	1933	1932	PER CENT OF FIELD 1936	1935	1933	1932
Ivory	1,590	1,603	1,389	1,165	21.1	21.7	20.6	21.6
Lifebuoy	1,289	1,211	1,319	790	17.1	16.4	19.5	14.6
Lux	1,216	999	1,553	1,082	16.1	13.5	23.0	20.0
Palmolive	1,070	1,296	816	1,047	14.2	17.6	12.1	19.4
Camay	882	888	659	464	11.7	12.0	9.8	8.6
Sweetheart	372	192	104	346	4.9	2.6	1.5	6.4
Woodbury's	251	296	104	33	3.3	4.0	1.5	.6
Colgate's Big Bath	80	41	34	27	1.1	.5	.5	.5
Halco	79	77			1.0	1.0		
Lava	65	48			.9	.7		
Kirk's Hardwater	57	85	78	50	.8	1.2	1.2	.9
Fairy	47	51			.6	.7		
Lindner's	43				.6			
Oli-Vi-Lo	35	47	51	152	.5	.6	.8	2.8
131 Others	464	549	639	247	6.1	7.5	9.5	4.6

In the flake, chip and granule division, Chipso, Lux, Sweetheart are reported to be the leading sellers. In the laundry bar trade Fels-Naptha is the outstanding brand. The following standings are reported for this and other brands:

BRAND	NUMBER OF HOMES 1936	1935	1933	1932	PER CENT OF FIELD 1936	1935	1933	1932
Fels-Naptha	2,756	2,383	1,911	2,101	52.4	44.5	37.4	36.4
P & G	616	761	982	1,244	11.7	14.2	19.2	21.6
Ivory	480	414	321	906	9.1	7.7	6.3	15.7
Werk's Tag	448	475	483	482	8.5	8.9	9.5	8.4
Octagon	305	400	320	208	5.8	7.4	6.3	3.6
Kirkman's Borax	224	256	210	161	4.3	4.8	4.1	2.8
O. K.	147	264	245	185	2.8	4.9	4.8	3.2
Big Ben	71	133	218	126	1.3	2.5	4.3	2.2
Kirk's Flake	47	74	97	185	.9	1.4	1.9	3.2
43 Others	170	199	317	169	3.2	3.7	6.2	2.9



. . . . **MAYBE they have some distinctive appeal . . . . maybe they're "99 44/100% pure"; maybe they help keep "that schoolgirl complexion", or stop "B.O.", or ward off "cosmetic skin". Or maybe they're just ordinary soaps intended to make the every-day function of personal cleanliness a pleasanter and more refreshing routine. In any case, the use of a pleasing and appropriate scent can only lend added charm and appeal to your product . . . . added distinction that will pay extra dividends in the long run. In fact, many of today's best selling soaps owe their success to no special distinction other than their delightfully superior fragrance.**

By taking advantage of the assistance our Special Perfume Division can render in developing an intriguing and exclusive scent for your product, you can make the perfume note of your soap one of its most appealing and distinguishing characteristics, — a positive asset from the standpoint of immediate and repeat sales. We've done this for many another successful soap manufacturer; we'll gladly do it for you . . . and without the least obligation should we fail to satisfy. Write us in detail . . . . today.

"Fragrance Creates Sales Appeal"

FRITZSCHE Brothers, inc.

816 WEST 8TH STREET LOS ANGELES, CAL.
Proprietors of PARFUMERIES de SEILLANS Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77 79 Jarvis St., Toronto, Canada

PORT AUTHORITY COMMERCE BLDG.
76 NINTH AVENUE, NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO, ILL.

A *Fritzsche* PRODUCT for EVERY PURPOSE . . .

- **ESSENTIAL OILS**

  These basic materials are, as they should be, the finest that modern methods and scientific skill can produce—oils of the very highest purity and dependability.

- **AROMATIC CHEMICALS**

  Each item in this group represents a degree of purity and quality that assures finer aromatic effects **plus** the advantage of material economy.

- **FIXATIVES**

  In addition to our regular line of fixatives, our laboratories have perfected a new group of artificial animal scents—Musk, Civet, Castoreum and Ambergris—especially adaptable to soap making requirements. All are remarkably effective fixatives and closely duplicate the principal characteristics of the genuine products. Send for literature.

- **BATH SALT PERFUMES**

  Combining perfume and color, our delightful Bath Perstels greatly simplify and facilitate the process of manufacture. Very economical. Send for details and complete list of blends.

- **DENTAL AND ORAL FLAVORS**

  The flavors in this group are of a special character, carefully blended to impart pleasant, clean, refreshing taste effects. Consult us for these or for the creation of exclusive flavor blends.

- **DEODORIZING COMPOUNDS**

  The use of **good** deodorizing compounds in technical products such as para blocks, naphthalene, cleansers, waxes, polishes, solvents, diluents, etc., is one of the best investments a manufacturer can make. For effective, low cost coverage we offer Neutroleum, Safrella, Javollal, Methalate "C", and others.

- **INSECTICIDES AND DISINFECTANTS**

  Our Research Division has devoted much time to this phase of perfuming. All materials offered by us under this heading embody the latest scientific findings.

- **TOILET SOAP COMPOUNDS**

  A large group of perfumes especially prepared to meet the exacting requirements of soap manufacture. Exquisite scents at minimum cost. Send for particulars.

- **LIQUID SOAP AND SHAMPOO PERFUMES**

  These perfumes are highly soluble and mix readily with liquid soaps. Quantity required governed by cost limits and strength of odor desired.

- **SOAP COLORS**

  We can supply soap colors to produce any desired tint. For specific recommendations, send us description or sample of color to be matched.

- **ANTI-OXIDANTS**

  Highly important to the soap manufacturer are our newly developed preservatives for soaps, animal and vegetable fats and oils. Write us for full particulars.

SEND FOR SAMPLES

FTC Cites Woodbury

William A. Woodbury Sales Co. has been cited by the U. S. Federal Trade Commission in a complaint issued April 30 charging unfair competition in the sale of cosmetics and toilet preparations. In selling face creams, shaving creams, tooth pastes and other products, the respondents are alleged to have had printed on their cartons: "Prepared by William A. Woodbury Corporation." This and other similar designations allegedly serve as representations that William A. Woodbury Sales Co., is a manufacturer and that it manufactures and prepares the products sold by the respondents, when, according to the complaint, this company operates no factory and is not a manufacturer of such articles.

C-P-P, Ltd. Raises Wages

Colgate-Palmolive-Peet Co., Ltd. of Toronto, has announced a wage increase of 5 per cent, a 5-day week system with working hours reduced from 48 to 45 hours, and one week's vacation with pay for all factory employees. Effective May 3, the working days are reduced from 5½ days to 5 9-hour days; the hourly wage rates are increased so that earnings for a 45-hour week are equal to the 48-hour week, plus an additional 2½ cents per hour; and all factory employees who have been employed not less than one year as of June 30 are given one week's vacation with pay.

Rice Dust Oil for Soaps

Scarcity of other domestic fuel sources caused the Italian Government a few weeks ago to consider the possibility of producing alcohol from rice dust. The Japanese Imperial Institute of Physico-Chemistry has made experiments with similar waste products from rice in order to produce an oil which could be used industrially. The research work has been carried on for about eight months and it is now planned to use this oil, which can be produced in large quantities, in the manufacture of soaps.

HOW TO KEEP COSTS DOWN WHEN FATS & OILS GO UP!

STRAWS IN THE WIND indicate soaring prices for fats and oils. It's a time when alert manufacturers use to the maximum P.Q. Silicate Service.

Proper ratio P.Q. Silicates of uniform reliable quality, in the crutcher assure the soap manufacturer of these double advantages:

1. Producing high quality soap
2. Holding down costs by using less oil

P.Q. experience in the application of silicates in household soaps dates back more than three-fourths of a century. Bulletin No. 1 (Revised Edition) reviews much of this. Send for a free copy.

P. Q. SILICATES OF SODA

PHILADELPHIA QUARTZ CO.

PHILADELPHIA

General Offices and Laboratory: 125 S. Third St., Phila., Pa.
Chicago Sales Office: Engineering Bldg. Stocks in 60 cities.
Sold in Canada by National Silicates Ltd., Toronto, Ont.

Works: Anderson, Ind., Baltimore, Md., Chester, Pa., Buffalo, N. Y., Kansas City, Kans., Rahway, N. J., St. Louis, Mo., Utica, Ill.

ESTABLISHED 1831

Please send Bulletin No. 1, P.Q. Silicates of Soda in Soapmaking.

*Name*_____

*Address*_____

*City*_____ *State*_____

PQ

REG. U. S. PAT. OFF.

Contracts Awarded

Chicago Soap Awards

In a recent opening by the Jeffersonville quartermaster, Armour & Co., Chicago, were awarded a contract on 300,000 lbs. laundry soap at 4.97c per lb., Hecker Products Corp., New York, on 200,000 lbs. laundry soap at 4.83c and Cudahy Packing Co., Chicago, on a quantity of grit soap at 4c per cake.

Naphthalene Award

Naphthalene Products Co., Birmingham, Ala., was low bidder in a recent opening for Jeffersonville quartermaster, receiving a contract for 8,800 lbs. flake naphthalene at 7.5c.

Brooklyn Soap Awards

In a recent bidding, Kirkman & Son, Brooklyn, were awarded a contract on 620,000 lbs. laundry soap at 4.4c. Day & Frick, Phila., were given the award on 60,000 cakes grit soap at 3.4c for delivery to Brooklyn quartermaster.

Day & Frick Get Soap Award

Day & Frick Co., Philadelphia, has been awarded a contract for 13,000 cakes grit soap at 1.8c to be delivered to Chicago quartermaster.

Brooklyn Quartermaster Award

John T. Stanley Co., New York was awarded a contract for 250,000 lbs. laundry soap with a price of 3.97c in a recent bidding. Kirkman & Son, Brooklyn, were awarded a contract for 15,000 lbs. toilet soap at 3.61c to be delivered to Brooklyn quartermaster.

Fort Barrancas Awards

The following awards were made recently on materials to be supplied to Fort Barrancas quartermaster, Fla.: Conray Products Co., New York, 60 lbs. oil of pennyroyal at $1.38 and 1200 lbs. pyrethrum powder at a price of 15.8c per lb.; Crystal Soap & Chemical Co., Philadelphia, 200 gals. cresol solution at 1.28c; and Magnus, Mabee & Reynard, New York, 60 lbs. oil of citronella at 40c per lb.

Chicago Quartermaster Awards

The following awards were made in a recent bidding on supplies for the Chicago quartermaster: Joseph Dixon Crucible Co., Jersey City, 32,400 cakes stove polish at 3.1c; Buckeye Soda Co., Painesville, Pa., 37,392 cans caustic soda at 4.479c; Hysan Products Co., Chicago, 5,000 lbs. trisodium-phosphate at 2.4c.

Brooklyn Bids

The following awards were made in a recent opening by the Brooklyn quartermaster: Joseph Dixon Crucible Co., Jersey City, 37,500 lbs. stove polish at 7.6c a lb.; Day & Frick Co., Philadelphia, 81,250 lbs. grit soap at 3.4c; Reilly Tar & Chemical Co., New York, 40,000 lbs. naphthalene at 7.25c a lb.

Fort Mason Soap Awards

The following awards were made on material to be supplied to Fort Mason quartermaster, Calif., in a recent bidding: Colgate-Palmolive-Peet Co., Berkeley, Calif., quantity of laundry soap at a price of 4.72c, and Crystal Soap & Chemical Co., Phila., quantity of grit soap at 3.94c.

Jeffersonville Soap Bids

Armour & Co., Chicago, and Procter & Gamble Co., Cincinnati, were low bidders on 500,000 lbs. laundry soap in a recent bidding with a price of 4.97c. Cudahy Packing Co., Chicago, was low bidder on 60,000 cakes grit soap at 4c a cake. Material was for delivery to Jeffersonville quartermaster.

Atlanta Soap Bids

Low bidders in a recent opening for U. S. Penitentiary, Atlanta, were: James Good, Philadelphia, 2400 cakes grit soap at 40.9c, Iowa Soap Co., Burlington, Iowa, 4,000 lbs. chip soap at 9.13c, Guardian Chemical Co., 450 gals. liquid soap at 34.5c, and Murphy Products Co., 800 gals. insecticide at 40.5c per gal.

Jeffersonville Awards

Contracts have been awarded to Geo. J. Kelly, Lynn, Mass. for 15,000 lbs. saddle soap at 11½c and to Naphthalene Products Co., Birmingham, Ala. for 10 bbls. naphthalene at 7.5c for delivery to Jeffersonville quartermaster.

Gets Soap Dispenser Award

The Procurement Division, Branch of Supply, Washington, D. C., has made the following awards on liquid soap dispensers to Clifton Chemical Co., New York, for the fiscal year: Push-up wall type with metal globe $1.65 ea.; Push-up gooseneck with glass globe, $2.00 ea.; Push-up gooseneck with metal globe, $2.10 ea.; Tilting gooseneck with glass globe, $2.25, ea.; Tilting gooseneck with metal globe, $3.00, ea.; Tilting gooseneck with glass globe for powdered soap, $2.25 ea.; Tilting gooseneck with metal globe for powdered soap, $3.00 ea.; Tilting wall type with metal globe for powdered soap, $2.50 ea.

Gets Moth Killer Award

Clifton Chemical Co., New York, has been awarded a contract by the New York City Board of Education covering 500 gallons of moth killer at $1.23 per gallon.

Buys Columbus Soap Co.

The business of Columbus Soap Co., Columbus, Ohio, has just been taken over by Heider Chemical Co., Columbus. All equipment of the soap company is being moved to the Heider plant and the complete list of Columbus products added to the Heider line. These include a hard green soap, a vegetable soap and a hand soap powder "Zu-Ky." In preparation for an intensive statewide sales campaign, three new salesmen have been added to the Heider staff.

Bergamot

SYNTHETIC

High ester content. Economical, uniform. Particularly important in view of the natural Bergamot market.

Lily of the Valley

S No. 3561

Specially designed for the soap maker. Delicate yet persistent and surprisingly true to nature.

Crataegon

CRYST

Similar to anisic aldehyde but absolutely stable in soaps. High boiling point. Excellent fixative.

Schimmel & Co., Inc.

601 West 26th Street, New York, N. Y.

BOSTON CHICAGO LOS ANGELES TORONTO

New Trade Marks

The following trade-marks were published in the April issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

BLUE BIRD—This lined for yellow and blue with picture of bluebird describing laundry soap. Filed by West Coast Soap Co., Oakland, Calif., July 18, 1936. Claims use since July, 1931.

NU-GLO—This in outline letters describing oil soap. Filed by Canfield Oil Co., Cleveland, July 21, 1936. Claims use since June 16, 1936.

MOST—This inside a number four describing shaving cream. Filed by Ashworth Advertising Co., New York, Jan. 2, 1937. Claims use since Dec. 30, 1936.

ESCOMOT—This on stencil describing detergent composition. Filed by Cowles Detergent Co., Cleveland, Jan. 6, 1937. Claims use since Dec. 1, 1936.

CHLORIT—This together with picture of woman hanging clothes describing cleaning compound. Filed by Chlorit Chemical Corp., Brooklyn, N. Y., Sept. 18, 1936. Claims use since Sept. 1, 1936.

TRU-LYTE—This in solid letters describing hair shampoo. Filed by Tru-Lyte Laboratories, Oakland, Calif., Dec. 21, 1936. Claims use since Oct. 15, 1936.

SULROTE—This in solid letters describing insecticides. Filed by Mechling Bros. Chemical Co., Camden, N. J., Jan. 18, 1937. Claims use since Sept. 26, 1935.

THE UNIVERSAL—This in outline letters describing water softener. Filed by Universal Automatic Water Softener & Purifier Co., Chicago, Jan. 19, 1937. Claims use since July 1, 1936.

NATONE—This in solid letters describing shampoos. Filed by Natone, Inc., Los Angeles, Oct. 3, 1936. Claims use since Mar. 1, 1936.

MASSO—This in solid letters describing tooth paste and powder. Filed by Pro-phy-lac-tic Brush Co., Northampton, Mass., Nov. 10, 1936. Claims use since Mar. 8, 1928.

CIRENE—This in solid letters describing liquid wax. Filed by Davies-Young Soap Co., Dayton, O., Feb. 19, 1937. Claims use since Feb. 5, 1937.

3-M—This in solid letters describing wax polishes. Filed by Minnesota Mining & Mfg. Co., St. Paul, Mar. 4, 1937. Claims use since Jan., 1937.

NON-GLARE — This together with dark and light background describing cleaning preparation. Filed by Non-Glare Chemical Co., Evanston, Ill., Dec. 11, 1936. Claims use since May, 1933.

LES-F-ORT—This in solid letters describing all purpose cleanser. Filed by Less Effort Products Co., Chicago, Dec. 11, 1936. Claims use since May 20, 1934.

ZEEN—This in solid letters describing dry cleaner. Filed by Zeen Chemical Co., Cleveland, O., Jan. 5, 1937. Claims use since Nov., 1934.

ALSINA—This on stencil describing chemical compounds. Filed by Cowles Detergent Co., Cleveland, O., Jan. 25, 1937. Claims use since Dec. 15, 1936.

AMERICE—This in solid letters describing toilet soaps. Filed by Marshall Field & Co., Chicago, Jan. 28, 1937. Claims use since Oct., 1914.

ESKIER—This on stencil describing detergent for textile fabrics. Filed by Cowles Detergent Co., Cleveland, O., Feb. 3, 1937. Claims use since Jan. 15, 1937.

ZOOP—This in solid letters describing cleaning compound. Filed by Johns-Mansville Corp., New York, Feb. 6, 1937. Claims use since Nov. 30, 1936.

SHEPHERDESS LAVENDER—This in solid letters describing soaps. Filed by Shulton, Inc., New York, Feb. 17, 1937. Claims use since Feb. 15, 1937.

SUNIE—This together with rectangular background describing shaving cream and soap. Filed by Basel Co., Cleveland, O., Feb. 19, 1937. Claims use since Dec. 28, 1936.

HERCOTA—This in solid letters describing liquid detergent. Filed by Hercules Powder Co., Wilmington, Del., Feb. 24, 1937. Claims use since Feb. 1, 1937.

NUNAP — This together with decorative background describing cleaning compound. Filed by Parfums Duvee, Inc., New York, Feb. 25, 1937. Claims use since Jan. 16, 1937.

KELITE—This in outline letters with picture of key describing cleansers. Filed by Kelite Products, Inc., Los Angeles, Feb. 27, 1937. Claims use since Feb. 10, 1937.

KU-BA-TOX—This in solid letters describing agricultural insecticidal material. Filed by Ansbacher Siegle Corp., Brooklyn, March 24, 1936. Claims use since March 26, 1932.

ANT HOUSE—This in solid letters describing insect poisons. Filed by An-Fo Mfg. Co., Oakland, Calif., Jan. 12, 1937. Claims use since Dec. 21, 1936.

PAXIDE—This in solid letters describing insect exterminators. Filed by Irving Billig, New York, Feb. 12, 1937. Claims use since Jan. 1, 1937.

DAYSHINE—This in solid letters describing floor wax. Filed by E. L. and J. F. Dennehy, Inc., Brockton, Mass., Mar. 9, 1937. Claims use since Nov. 7, 1934.

BLACK FLAG—This in solid letters describing insecticides. Filed by Black Flag Co., Baltimore, Jan. 25, 1937. Claims use since 1883.

DARIS—This in solid letters describing wax and polish. Filed by Derris, Inc., New York, Feb. 1, 1937. Claims use since Jan. 5, 1937.

DITTO—This together with ditto marks describing soap and cleaner. Filed by Ditto, Inc., Chicago, Nov. 21, 1936. Claims use since Feb. 8, 1929.

SUPER COPPER—This in solid letters describing insecticides and fungicides. Filed by Hammond Paint

KRANICH SOAPS

U. S. P.

POWDERED CASTILE SOAP

ALSO a complete line of KRANICH QUALITY

Pine Scrub Soaps
Auto Soaps
Hard and Soft Potash Soaps
Liquid Toilet Soaps
Shampoo Bases
U. S. P. Potash Soaps
Coconut Oil Shampoos
Olive Oil Shampoo

KRANICH SOAP COMPANY

56 Richards Street — Brooklyn, N. Y.

RAW MATERIALS

iEi

for the soap and allied industries

ALCOHOL
AMMONIA
BLEACHING POWDER
BORAX
BICARBONATE OF SODA
CARBON TETRACHLORIDE
CALCIUM CHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILICATE
OXALIC ACID
POTASSIUM CARBONATE
SAL AMMONIAC
SALT
SAL SODA
SILICATE OF SODA
SODA ASH
TRISODIUM PHOSPHATE

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID -RED OIL
OLIVE OIL
OLIVE OIL FOOTS
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN
SALAD OIL
SOYA BEAN OIL
SESAME OIL
TEASEED OIL
WHITE OLEINE
FATTY ACIDS
STEARINE
STEARIC ACID
GREASE
TALLOW

GLISYN

Inquiries solicited on this low price glycerine replacement.

Every raw material necessary for the manufacture of soap and allied products is carried in stock, and available at the right price for immediate delivery to your door.

CAUSTIC SODA
CAUSTIC POTASH
liquid—flake—solid
•
OLIVE OIL FOOTS

OLIVE OIL
•
TALLOW
•
COCOANUT OIL

DRUMS—TANK CARS—TANK WAGONS

Members New York Produce Exchange

EASTERN INDUSTRIES, INC.

Vegetable Oils, Animal Oils, Fats, Chemicals

Ridgefield, New Jersey - - - Telephone MOrsemere 6-5630

& Chemical Co., Beacon, N. Y., Dec. 18, 1936. Claims use since Nov. 10, 1935.

TOXCIDIN—This in solid letters describing antiseptics. Filed by L. C. Palmer, Washington, D. C., Jan. 28, 1937. Claims use since Sept. 1, 1932.

VULTONE—This on stencil describing moth proofing spray. Filed by U. S. Antiseptic Laboratories Corp., Baltimore, Jan. 28, 1937. Claims use since Jan. 10, 1937.

DARIS—This in solid letters describing insecticides and drain pipe cleaner. Filed by Derris, Inc., New York, Feb. 1, 1937. Claims use since Jan. 5, 1937.

NU-LIFE—This in outline letters with picture of sun describing rug and upholstery cleaner. Filed by Nu-Life Rug Cleaning Co., Cleveland, O., Mar. 6, 1936. Claims use since Feb. 1, 1935.

LIFE GUARDS SILVER—This together with dark circle background describing silver polish. Filed by E. Keller & Sons, Allentown, Pa., Jan. 21, 1937. Claims use since Jan. 7, 1937.

MASTER—This in outline letters with picture of man's hand describing soap. Filed by Gilbert & Dimitre, Eau Claire, Wis., Jan. 22, 1937. Claims use since May 15, 1936.

ESCOUR—This on stencil describing detergent composition for textiles. Filed by Cowles Detergent Co., Cleveland, O., Jan. 25, 1937. Claims use since Jan. 10, 1937.

DIS—This lined for red and grey describing dishes. Filed by V. C. Products Co., Philadelphia, Jan. 25, 1937. Claims use since June 1, 1936.

BRITE—This in outline letters describing chemical compound. Filed by Brite X Co., Colfax, Wis., Jan. 27, 1937. Claims use since Jan. 15, 1937.

DARIS—This in solid letters describing flushing powder. Filed by Derris, Inc., New York, Feb. 1, 1937. Claims use since Jan. 5, 1937.

FRISCO—This in solid letters describing soaps. Filed by Ferd Mulhens, Inc., New York, Feb. 11, 1937. Claims use since Jan. 26, 1937.

SUDS-BUDS—This in solid letters describing soap. Filed by McCoy, Jones & Westlake, Inc., Chicago, Feb. 15, 1937. Claims use since Jan. 2, 1937.

SUN MYTE—This in solid and shaded letters describing deodorant and disinfectant. Filed by Sun Myte Wash Products, Chicago, Nov. 12, 1936. Claims use since April, 1932.

POTENTOX — This on stencil describing agricultural insecticide. Filed by General Chemical Co., New York, Dec. 24, 1936. Claims use since Oct. 7, 1936.

FOUR STRONG—This in outline letters describing insecticides. Filed by Reefer-Galler, Inc., New York, Dec. 31, 1936. Claims use since Feb. 15, 1935.

SMITE—This in solid letters describing spray. Filed by Aqua-Sec Corp., New York, Feb. 15, 1937. Claims use since Sept., 1936.

TING—This in solid letters describing insecticide and germicide. Filed by Pharma-Craft Corp., Louisville, Ky., Jan. 14, 1937. Claims use since Jan. 6, 1937.

PYRA-SEAL — This on stencil describing varnish. Filed by Vestal Chemical Co., St. Louis, Jan. 25, 1937. Claims use since May 20, 1936.

KAPLEX—This in solid letters describing soap powder. Filed by Kali Mfg. Co., Philadelphia, Jan. 5, 1937. Claims use since Jan. 6, 1931.

STANIS—This in solid letters describing foot soap. Filed by Stanis, Chicago, Jan. 30, 1937. Claims use since June 1, 1936.

MIRPO—This in solid letters describing polish. Filed by Mirpo Products Mfg. Co., La Porte, Ind., Feb. 17, 1937. Claims use since June 27, 1933.

CALICO SEED—This in solid letters describing poison seeds. Filed by Bagnall Co., Kansas City, Mar. 31, 1936. Claims use since Feb. 11, 1936.

Trade Marks Granted

344,359. Liquid Cleaner. Union Oil Co. of California, Los Angeles. Filed May 25, 1935. Serial No. 365,399. Published January 12, 1937. Class 4.

344,425. Laundry Soap. National Retailer-Owned Grocers, Inc., Chicago. Filed November 14, 1936. Serial No. 385,533. Published January 12, 1937. Class 4.

344,451. Wax Polishing Compositions. Socony-Vacuum Oil Co., New York. Filed May 15, 1936. Serial No. 378,505. Published June 30, 1936. Class 16.

344,463. Shaving Cream, Soaps, Steel Wool Cleaning Pads, Metal and Glass Cleaner. Padola Corp., New York. Filed October 27, 1936. Serial No. 384,861. Published January 12, 1937. Class 4.

344,467. Hand or Toilet Soap. Syndicate-Alliance Trading Co., New York. Filed October 28, 1936. Serial No. 384,910. Published January 12, 1937. Class 4.

344,544. Paste Soap. Sterling Products Co., Easton, Pa. Filed September 16, 1936. Serial No. 383,329. Published November 24, 1936. Class 4.

344,607. Thiophated Shampoo. Rilling-Arnao Co., Minneapolis. Filed November 2, 1936. Serial No. 385,064. Published January 5, 1937. Class 6.

344,742. Insecticide. Kawahara Co., Los Angeles. Filed June 10, 1936. Serial No. 379,524. Published January 26, 1937. Class 6.

344,746. Cream Shampoo. Benco Products, New York. Filed June 16, 1936. Serial No. 379,921. Published January 26, 1937. Class 6.

344,759. Polishes. Midway Chemical Co., Chicago. Filed July 20, 1936. Serial No. 381,229. Published January 12, 1937. Class 16.

344,762. Polish and Glass Cleaner. Slick-Shine Co., Newark. Filed August 20, 1936. Serial No. 382,397. Published January 26, 1937. Class 4.

344,783. Dry Cleaning Soap. Benzofoam Products Co., Chicago. Filed October 19, 1936. Serial No. 384,539. Published January 26, 1937. Class 4.

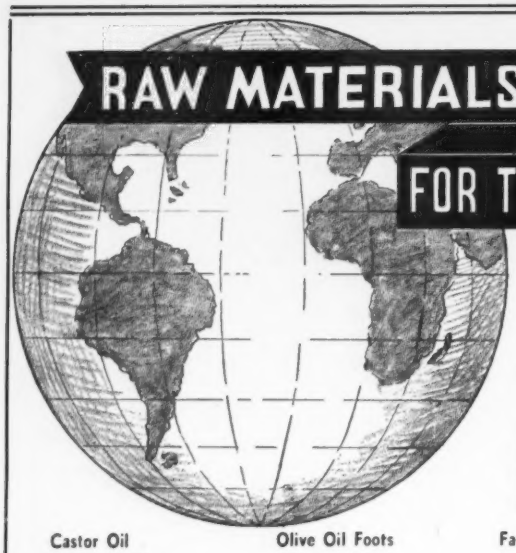
344,805. Cleaning Compound. J. B. Ford Co., Wyandotte, Mich. Filed October 29, 1936. Serial No. 384,925. Published January 26, 1937. Class 4.

344,816. Saponaceous Compounds. Moe D. Horowitz, Atlanta.

(*Turn to Page* 123)

RAW MATERIALS

OILS FATS
CHEMICALS
FATTY ACIDS



FOR THE SOAP INDUSTRY

FROM ALL PARTS OF THE WORLD

YOU cannot control the weather but you can control the standard of your raw materials by buying from a house which has supplied the best to the trade for nearly a century. Having supplied the Soap and Cosmetic industry from its infancy, we solicit orders for your requirements of tested and reliable raw material.

Castor Oil
Cocoanut Oil
Corn Oil
Cottonseed Oil
Palm Oil
Palm Kernel Oil
Olive Oil

Olive Oil Foots
Peanut Oil
Perilla Oil
Rapeseed Oil
Sesame Oil
Soya Bean Oil
Teaseed Oil

Fatty Acids
Lard Oils
Neatsfoot Oil
Oleo Stearine
Stearic Acid
White Olein

Tallow
Grease
Lanolin
Caustic Soda
Soda Ash
Caustic Potash
Carbonate Potash
Sal Soda

Modified Soda
Silicate Soda
Metasilicate
Tri Sodium Phosphate
Di Sodium Phosphate
Chlorphyll
"CEREPS" Superfatting Agent

WELCH, HOLME & CLARK CO., Inc.

563 GREENWICH STREET, NEW YORK CITY

ESTABLISHED 1838

DOBBINS *Superbilt* SOAP SPRAYERS

No. 170
PORTABLE SOAP SPRAYER

"Cut Costs and Labor Of Floor Scrubbing"

Increase your sales—your profits and build good-will.

Sell Dobbins soap sprayers with your soaps and cleaners and show your customers this easier, quicker more modern way of floor cleaning.

"Superbilt" for years of hard day-in and day-out janitorial service.

All gaskets, valves and hose made of special materials to withstand the caustic reactions of soaps and cleaners.

Write for Illustrated literature today.

2 OR 3 GAL. CAPACITY

DOBBINS

Manufacturing Company
NORTH ST. PAUL, MINNESOTA

Raw Material Markets

As of April 27, 1937

NEW YORK — Prices of raw materials for the manufacture of soaps and sanitary products showed a moderately reactionary trend this period, with a number of reductions reported in numerous key items, and few new advances of any great importance. The soap trade continued to report capacity production schedules in most plants, with consumption of alkalis and oils continuing at very high levels.

Prices of oils and fats were weaker all along the line, with the market quiet in anticipation of the expected decision of the U. S. Supreme Court in the Philippine coconut oil excise tax case. Buyers have apparently been postponing purchases as long as possible, waiting for the decision to clear the atmosphere before developing their future oil buying plans.

The glycerin market also weakened this period, with all grades priced lower and in better supply. Prices abroad have been declining steadily in recent weeks, and imported soap lye is now being offered at levels under a parity with the domestic market.

OILS AND FATS

Coconut Oil

Coconut oil and copra continued to decline this period and Manila oil is now a cent under the level of last month and two cents lower than its price of two months ago. Demand from the soap trade has been rather erratic over recent months, with buyers shifting to other oils priced at more attractive levels. A clearer picture of the future outlook will be available after the decision of the U. S. Supreme Court in the Philippine coconut oil excise tax case which is expected momentarily. In the meanwhile active trading in the market seems to have been suspended.

Palm Oil

Spot oil is held at comparatively high levels, but offerings of softs and palm kernel oil for shipment have been noted at lower prices.

Olive Oil

Olive oil is quoted at a more attractive figure this period owing to the recent lifting of the export tax previously in effect in Greece. Quotations now range from $1.45 to $1.50 per gal. Italy has also eliminated its export tax on foots, but this makes but little difference for the moment, as stocks there are very small. The foots market remains nominal at a level of 11½ to 12c. Demand is reported rather light.

Tallow

Tallow prices continued to decline throughout the period just closed, and over the month dropped an aggregate of a half cent per pound. City extra is quoted currently at 8½c. Grease quotations also eased off a like amount and house and yellow grades are now quoted around 8½c.

PERFUMING MATERIALS

Anise Oil

A continuation of the declining tendency in anise oil was noted this period, and quotations eased off further to a level of 75 to 80c. Replacement offerings are not large, and the market still retains a distinctly firm tone, although prices are receding from peak levels.

Cedar Leaf Oil

An increase in available stocks sent the price of cedar leaf oil tumbling this period. Quotations dropped 20c per lb. to a basis of 80 to 85c.

Citronella Oil

Ceylon oil eased off further this period and is now quoted from 40 to 42c. Imports have been very heavy over recent months, with 185,174 lbs. brought into United States in February.

Geranium Oil

A declining franc sent geranium oil lower this period both for Algerian and Bourbon oil. Turkish geranium took just the reverse trend, with replacement costs advancing as a result of last year's short crop.

GLYCERIN

A further drop in glycerin quotations was noted this period, with soap lye now offered quite freely at a figure of 18c. All grades, as a matter of fact, are more readily available than for some time past. Prices abroad have been declining steadily over recent weeks, and foreign crudes are now under a parity with the American market for the first time in several months. In the face of this easier supply situation, buying interest has moderated, and present demand is rather limited.

PYRETHRUM

A further improvement in the tone of the market for pyrethrum flowers and extract was noted this period. Such of last year's crop as is still available is reported to be of rather poor quality and is being held by shippers at fairly high levels. The new crop material of course commands a premium, and is being offered at 18 to 20c. Extract prices are all currently at higher levels than they were a month ago.

Uphold Maine Act

The Maine Cosmetic Act, whose validity was challenged by Bourjois, Inc., New York, has just been upheld by the U. S. Supreme Court. The law requires registration of all cosmetic products sold within the state and imposes an annual registration fee of 50c on each product registered. Bourjois challenged the act as a burden on interstate commerce, although the right of Maine to exclude poisonous or adulterated cosmetics was not questioned.

ABC

CRESYLIC ACID
AROMATICS

PHENYL ETHYL ALCOHOL
GERANIOL
CITRONELLOL
ACETOPHENONE
BENZYL ACETATE
BENZYL ALCOHOL
BENZOPHENONE
AMYL CINNAMICALDEHYDE

For Soaps, Perfumes, Cosmetics, etc.

AMERICAN-BRITISH CHEMICAL SUPPLIES, Inc.
180 MADISON AVE., NEW YORK, N.Y.

ASSOCIATED COMPANIES
KAY-FRIES CHEMICALS, INC. NEW YORK, N. Y.
CHARLES TENNANT & CO. (CANADA) LTD. TORONTO, CANADA

MORE Pail · LESS Talk

Benetco PAILS and DRUMS are ideal for the handling and shipment of *Insecticides, Disinfectants, Liquid Soaps, Chemicals,* etc.

YOU get MORE for your money in these Sturdy PAILS and DRUMS.—They can take abuse without damage to container or contents. Plain colors or lithographed—all sizes and styles.

Write for catalog and prices

WILSON & BENNETT MFG. CO.
6528 SO. MENARD AVE., CHICAGO
Phone: Republic 0200

JERSEY CITY, N. J.
Phones: Delaware 3-4700—Cortlandt 7-0231

NEW ORLEANS, LA.
Phone: Galvez 2171

Sales Offices and Warehouses in Principal Cities

Raw Material Prices

(As of April 26, 1937)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	$ .11	$ .12½
Acid. Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, drums	gal.	.83	.85
Low boiling grade	gal.	.88	.90
Oxalic, bbls.	lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.	lb.	.16	.18
Anhydrous, bbls.	lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.	gal.	4.14	4.19
Complete Denat., SD 1, drums, ex.	gal.	.32	.37
Alum. Potash lump	lb.	.03¼	.03½
Ammonia Water, 26°, drums, wks.	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.	lb.	.08	.12½
Bentonite 1	ton	—	16.60
Bentonite 2	ton	—	11.00
Bleaching Powder, drums	100 lb.	2.25	2.60
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
Caustic, see Soda Caustic, Potash Caustic			
L. C. L.	lb.	.07	.08
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.10	.10½
Creosote Oil	gal.	.13	.13½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls.	lb.	.05¾	.06¼
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.26½	.27
Dynamite, drums	lb.	.26½	.27
Saponification, drums	lb.	.20	.20¼
Soap, lye, drums	lb.	.18	.18¼
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.71	.76
Naphthalene, ref. flakes, bbls.	lb.	.07¼	.07½
Nitrobenzene (Myrbane) drums	lb.	.09	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Petrolatum, bbls. (as to color)	lb.	.02	.07¼
Phenol, (Carbolic Acid), drums	lb.	.13¼	.14¼
Pine Oil, bbls.	gal.	.59	.64
Potash, Caustic, drums	lb.	.06¼	.06½
Flake	lb.	.07	.07¼
Potassium Carbonate, solid	lb.	.07¼	.09½
Liquid	lb.	.03½	.03¾
Pumice Stone, powder	100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	8.30	9.30
Grade K to N	bbl.	9.32	9.32
Grade WG and X	bbl.	9.35	10.00
Wood FF Spot	bbl.	9.16	10.25
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica	ton	20.00	27.00
Soap, Mottled	lb.	.04⅛	.04⅝
Olive Castile, bars	lb.	.26	.35
Olive Castile, powder	lb.	.28	.38
Powdered White, Neutral	lb.	.19½	.21½
Olive Oil Foot, bars, 68-70%	lb.	.09	.09½
Green, U. S. P.	lb.	.08	.09½
Tallow Chips, 88%	lb.	.09	.09½
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, cont., wks., solid	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls.	100 lb.	$1.10	$1.30
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls.	lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.	lb.	.19	.20
Sodium Silicate, 40 deg., drum.	100 lb.	.80	1.20
Drums, 52 deg. wks.	100 lb.	1.35	1.75
Tar Acid Oils, 15-25%	gal.	.21	.24
Triethanolamine	lb.	.20	.25
Trisodium Phosphate, bags, bbls.	lb.	.03	.03½
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.20	.22

Oils — Fats — Greases

Babassu, tanks, futures	lb.	—	.10½
Castor, No. 1, bbls.	lb.	.10¾	.11½
No. 3, bbls.	lb.	.10¼	.11
Coconut			
Manila, tanks, N. Y.	lb.	.07½	.07¾
Tank, Pacific coast, futures	lb.	.07¼	.07½
Cod, Newfoundland, bbls.	gal.	.52	Nom.
Copra, bulk, coast	lb.	.0440	—
Corn, tanks, mills	lb.	.10	.10¼
Cottonseed, crude, tanks, mill	lb.	—	.09¼
PSY, futures	lb.	.10	.10½
Degras, Amer., bbls.	lb.	.07¾	.08
English, bbls.	lb.	.07¾	.08
Neutral, bbls.	lb.	.11½	.13
Greases, choice white bbls., fob Chicago	lb.	.08¾	.09¾
Yellow	lb.	.08⅜	.08⅝
House	lb.	.08⅜	.08⅝
Lard, City	lb.	.11¾	.12
Compound tierces	lb.	.13¼	.13½
Lard Oil,			
Extra, bbls.	lb.	—	.13¼
Extra, No. 1, bbls.	lb.	—	.13¼
No. 2, bbls.	lb.	—	.12¾
Linseed, raw, bbls.	lb.	.1130	.1170
Tanks, raw	lb.	—	.1070
Boiled, 5 bbl. lots	lb.	.1250	.1270
Menhaden, crude, tanks, Balt.	gal.	.43½	Nom.
Oiticica Oil	lb.	.11¾	.12
Oleo Oil, No. 1, bbls., N. Y.	lb.	—	.12¾
No. 2, bbls., N. Y.	lb.	—	.12¼
Olive, denatured, bbls., N. Y.	gal.	1.45	1.50
Foots, bbls., N. Y.	lb.	.11½	Nom.
Palm, shipment	lb.	—	.05¾
Palm Kernel, shipment	lb.	—	.06⅜
Peanut, domestic, tanks	lb.	.10	Nom.
Rapeseed Oil, denat.	gal.	.92	.93
Red Oil, distilled, bbls.	lb.	.11⅝	.12⅝
Saponified, bbls.	lb.	.11⅝	.12⅝
Tanks	lb.	—	.10¾
Sesame Oil, dms.	lb.	.13	Nom.
Soya Bean, domestic tanks, saponified, f.o.b. West	lb.	.10½	—
Stearic Acid,			
Double pressed	lb.	.12½	.13½
Triple pressed, bgs.	lb.	.15¼	.16¼
Stearine, oleo, bbls.	lb.	.09¾	.10
Sunflower Seed Oil, refd., dms.	lb.	.12¼	Nom.
Tallow, special, f.o.b. plant	lb.	—	.08⅝
City, ex. loose, f.o.b. plant	lb.	—	.08½
Tallow oils, acidless, tanks, N. Y.	lb.	—	.12¾
Bbls., c/l N. Y.	lb.	—	.13¼
Teaseed Oil	lb.	.10¼	.10½
Whale, refined	lb.	.1010	.1030

Just a Few OF OUR MANY Specialties

ISCO Chloride of Lime
(Bleaching Powder)
35/37% Free Flowing—High Test

ISCO Caustic Potash
Available in
Solid—Fused 88/92% and 85%
Flake—88/92%
Granular—Broken—Powdered
Liquid—Clarified—45% KOH, forms

ISCO Caustic Soda—in
Flakes 76%
Solid—Fused 76%
Crystals—76%
Liquid—50% Solution, tank cars or drums

- **Beeswax**
  Pure Yellow Refined
  Pure White Sunbleached
- **Carnauba Wax**
  Pure Refined—*Flake* as well as *Lump* Form. Melting point 183-184½° F.
- **Candelilla Wax**
  Refined—also in *Flake* and *Lump* Form. Melting point 160° F.

Samples, quotations and further information gladly sent on request.

INNIS, SPEIDEN & Co.
Manufacturers and Importers
117 Liberty Street New York
BOSTON · PHILADELPHIA · CLEVELAND · CHICAGO
GLOVERSVILLE, N. Y.
FACTORIES: JERSEY CITY, N. J., NIAGARA FALLS, N. Y.

Coming!

Coming in the next few issues of SOAP—

"Which Soap Dispenser—and for What Purpose?"

By LEONARD B. SCHWARCZ

* * *

"Some Notes on the Newer Synthetic Detergents"

By H. A. COMPSTON

* * *

"Fatty Acids—Their Use in Soaps"

By MARGARET J. HAUSMAN

* * *

Also articles on Sweeping Compounds. Theatre Sprays, Changing Laundry Soap Manufacture, and others.

Note: Make sure your subscription is paid up so that you do not miss any issues. Take care of that subscription renewal now.

SOAP
254 West 31st Street New York

(*As of April 26, 1937*)

Essential Oils

Almond, Bitter, U.S.P.	lb.	$2.75	$3.00
Bitter, F. F. P. A.	lb.	3.00	3.25
Sweet, cans	lb.	.90	.95
Anise, cans, U. S. P.	lb.	.75	.80
Bay tins		1.35	1.50
Bergamot, coppers	lb.	3.50	4.00
Artificial	lb.	1.25	1.40
Birch Tar, rect. tins	lb.	.70	.75
Crude, tins	lb.	.14	.17
Bois de Rose, Brazilian	lb.	1.25	1.35
Cayenne	lb.	2.75	3.00
Cade, cans	lb.	.38	.52
Cajeput, native, tins	lb.	.55	.58
Calamus, tins	lb.	3.50	3.75
Camphor, Sassy, drums	lb.	.16	.17
White, drums	lb.	.18	.19
Cananga, native, tins	lb.	1.75	2.25
Rectified, tins	lb.	3.00	3.35
Caraway Seed	lb.	2.10	2.25
Cassia, Redistilled, U. S. P.	lb.	1.00	1.05
Cedar Leaf, tins	lb.	.80	.85
Cedar Wood, light, drums	lb.	.26	.30
Citronella, Java, drums	lb.	.43	.45
Citronella, Ceylon, drums	lb.	.40	.42
Clove, U. S. P., tins	lb.	1.25	1.27
Eucalyptus, Austl., U. S. P., cans	lb.	.44	.46
Fennel, U. S. P., tins	lb.	1.05	1.10
Geranium, African, cans	lb.	4.75	5.25
Bourbon, tins	lb.	4.00	4.50
Turkish	lb.	3.10	3.20
Hemlock, tins	lb.	1.05	1.10
Lavender, U. S. P., tins	lb.	2.25	6.00
Spike, Spanish, cans	lb.	1.05	1.10
Lemon, Ital., U. S. P.	lb.	3.40	3.75
Cal.	lb.	3.25	—
Lemongrass, native, cans	lb.	.50	.52
Linaloe, Mex., cases	lb.	1.15	1.20
Nutmeg, U. S. P., tins	lb.	1.40	1.42
Orange, Sweet, W. Ind., tins	lb.	2.10	2.20
Italian cop	lb.	2.75	3.50
Distilled	lb.	—	.90
Cal.	lb.	2.50	—
Origanum, cans, tech	lb.	1.00	1.25
Palmarosa	lb.	3.10	3.20
Patchouli	lb.	5.25	8.00
Pennyroyal, dom.	lb.	1.65	1.75
Imported	lb.	1.60	1.85
Peppermint, nat., cans	lb.	2.50	2.70
Redis., U. S. P., cans	lb.	2.80	3.00
Petitgrain, S. A., tins	lb.	1.20	—
Pine Needle, Siberian	lb.	.85	.90
Rose, Natural	oz.	5.25	22.50
Artificial	oz.	2.00	3.00
Rosemary, Spanish, tins	lb.	.60	.65
drums	lb.	.55	.60
Sandalwood, E. Ind., U. S. P.	lb.	4.80	5.50
Sassafras, U. S. P.	lb.	.75	1.25
Artificial	lb.	.34½	.35½
Spearmint, U. S. P.	lb.	1.90	2.00
Thyme, red, U. S. P.	lb.	.95	1.25
White, U. S. P.	lb.	1.05	1.35
Vetivert, Bourbon	lb.	9.00	18.00
Ylang Ylang, Bourbon	lb.	3.50	6.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.25	$2.25
Amyl Cinnamic Aldehyde	lb.	1.55	2.00
Anethol	lb.	1.15	1.20
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.20	1.30
Benzyl, Acetate	lb.	.56	1.00
Alcohol	lb.	.65	1.15
Citral	lb.	2.00	2.30
Citronellal	lb.	1.10	1.25
Citronellol	lb.	1.90	2.15
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide		.70	1.00
Eucalyptol, U. S. P.	lb.	.65	.70
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	.75	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.00	2.50
Heliotropin	lb.	2.00	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.25	5.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	1.70	2.55
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.10	2.75
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	4.20	5.00
Ketone	lb.	4.35	5.25
Xylene	lb.	1.25	2.00
Phenylacetaldehyde	lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.	lb.	2.50	3.25
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.00	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.54	.57
Terpineol, C. P., 1,000 lb. drs.	lb.	.23	.25
Cans	lb.	.27	.30
Terpinyl Acetate, 25 lb. cans	lb.	.90	1.00
Thymol, U. S. P.	lb.	1.70	1.95
Vanillin, U. S. P.	lb.	3.75	4.00
Yara Yara	lb.	1.30	2.00

Insecticide Materials

Insect Powder, bbls.	lb.	.18	.20
Concentrated Extract			
5 to 1	gal.	1.25	1.30
20 to 1	gal	4.25	4.60
30 to 1	gal.	6.25	6.50
Derris, powder—4%	lb.	.33	.38
Derris, powder—5%	lb.	.39	.44
Cube, powder—4%	lb.	.23	.28
Cube, powder—5%	lb.	.28	.33

Gums

Arabic, Amb. Sts.	lb.	.14	.15
White, powdered	lb.	.17	.18
Karaya, powdered No. 1	lb.	.09½	.10
Tragacanth, Aleppo, No. 1	lb.	3.00	3.25
Flake	lb.	.50	1.00

Waxes

Bees, white	lb.	.40	.42
African, bgs.	lb.	.29	.30
Refined, yel.	lb.	.35	.39
Candelilla, bgs.	lb.	.15½	.16½
Carnauba, No. 1	lb.	.45	.46½
No. 2, N. C.	lb.	.40	.41
No. 3, chalky	lb.	.35	.36
Ceresin, yellow	lb.	.08½	.11
Paraffin ref. 125-130	lb.	.0455	.04¾

NUCHAR

ACTIVATED CARBON

NUCHAR Activated Carbon serves a very definite purpose in the soap and allied industries. It is an inexpensive yet efficient decolorizing and deodorizing agent, and offers a solution to many stubborn purification problems that have heretofore proved troublesome to manufacturers. The use of Nuchar Activated Carbon, for the economical removal of unwanted impurities from every type of product, has been adopted as standard practice by a substantial list of successful firms.

Nuchar is simple to use and replaces the older, more complicated purification methods; removing completely every undesirable body affecting your product. Investigate the possibilities of using Nuchar Activated Carbon in your process. Write for samples and details—or ask for a representative to call.

NUCHAR

INDUSTRIAL CHEMICAL SALES

DIVISION WEST VIRGINIA PULP AND PAPER COMPANY

230 Park Ave., New York | 205 W. Wacker Drive, Chicago | 418 Schofield Bldg., Cleveland

PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Abrasive Hand Soaps

FOR workmen whose hands are soiled not only with the usual types of dirt, but also with metal dust, rust, mineral oil, and other materials, ordinary soaps are not very effective hand cleaners. For such purposes a good soap is mixed with a substance which cleans by abrasive action. These soaps appear commercially in solid, paste and powder form. Finely ground abrasive materials such as pumice, feldspar, quartz, etc., are used as fillers, since they possess no absorptive action. These special soaps in cake form have the advantage over pastes and powders of being very economical. They lather well and do not waste away quickly.

Such soaps may be made to contain 25, 30 or 40 per cent of soap, calculated in terms of fatty acids,—with 35, 25 and 20 per cent of abrasive, insoluble filling agents. The fat charge consists of 65-75 per cent of hard fatty acids, 15 per cent rosin and 10-20 per cent naphthenic acids. Besides soda ash, sodium silicate is used having a ratio of $Na_2O:SiO_2$ of 1: 2.83. As abrasive agents, powdered pumice, feldspar, quartz, quartz sand, and marble flour are used. Even with the abrasive agents present, the water content is originally 30-32 per cent, so that the soap will flow well during the initial stages of preparation. Easy mobility of the mass is favored by the electrolyte content, which simplifies the technical process and later lends hardness to the soap.

Preparation is easiest with a salt content of 4 to 6 per cent. However, a wrong proportion in this mixture is bad, since a soda ash content of 3-5 per cent in the presence of 1-2 per cent of silicate, calculated as anhydrous, produces efflorescence in the soap. Efflorescence does not occur if the proportion of these two ingredients is reversed or if storage is at a relatively high temperature. The silicate can be worked in with no special difficulty.

The advantage of incorporating basic salts in the soap, especially silicate, needs no special emphasis, since a number of American workers have shown in the past that of the various salts used as building agents, silicate stands in first place on account of its high wetting, emulsifying and peptizing power, as well as other properties. These make it a valuable addition to soap, since it replaces a part of the soap in the washing process. Being a basic salt, it serves to neutralize acid constituents of the soil as well as to act as a water softener.

Soaps with the favorable salt content referred to do not effloresce on storage and do not dry out excessively. They do not lose their original form. Loss in weight after 10 days amounts to about 11.7 per cent and after 40 days, 17 per cent. In the same period, hardness increases from 2.3-2.7 to 7-12.9 grams per sq. m.

These soaps lather well. The volume of lather of a 0.25 per cent soap solution, calculated on fatty acid content, amounts at 20°C. after the first minute, to 325-357 cc, and after 3 minutes to 290-325 cc. The stability of the lather after 3 minutes is 90-94 per cent. This compares very favorably with some household soaps, e.g. a 0.5 per cent soap solution showed in water of 16.4 German degrees of hardness a lather volume of 325 cc. and a lather stability of 87.7 per cent.

Practical tests in mechanical workshops showed that soaps with a content of 35 per cent of fatty acids and 25 per cent abrasive possessed the highest detergent and lathering power. They remove soil quickly and efficiently. Economy in use and the small degree of wasting away were confirmed in these practical tests. Soaps with a content of 40 per cent of fatty acids and 20 per cent abrasive agents are recommended where less mechanical action is required.

Detergent efficiency of such soaps and their friction on the skin depends markedly on the particle size of the abrasive. A degree of fineness which leaves 10 per cent

residue on a sieve of 1600 mesh per square cm., corresponds to the requirements. (Ed. Note—One sq. in. equal 6.452 sq. cm. This would mean over 10,000 mesh per sq. in. which is extremely fine. Possibly an error.

On the basis of laboratory and semi-technical experiments, the following composition for these soaps is recommended: (1) 35 per cent fatty acids, 1 per cent soda ash, 3-4 per cent water-glass, 0.1 per cent free alkali, 25 per cent insoluble filler and 30-32 per cent water. (2) 40 per cent fatty acids, 1 per cent soda ash, 3-4 per cent waterglass, 0.1 per cent free alkali, 20 per cent insoluble filler and 30-32 per cent water. The fatty ingredients are those suggested above.

The preparation of the soap is as follows: For soap with a content of 35 per cent of fatty acids, a soap base having a fatty acid content of 56-57.6 is prepared, and for 40 per cent a base containing 60-62 per cent of fatty acids. The silicate and mineral abrasive are first worked together with constant stirring, either directly in the soap kettle or in a special mixing vessel. They mix easily. The fillers do not cause the soap to lose its mobility, so that it can be easily run off to the cooling press. After the soap has set it is cut into bars in the usual way and pressed after a short drying period in the air. Filling agents and silicate do not settle out in a properly prepared soap, as has been shown by chemical analyses of various parts of a cross-section. The alcohol-insoluble residue amounted to 24.8, 24.91 and 24.97 per cent in these analyses. *Allgemeine Oel-und Fett-Ztg.* **34,** 16-17 (1937).

Water-Softening Research

Many synthetic resins prepared by the condensation of certain phenolic substances and tannins with formaldehyde possess base-exchange properties. It has also been found that resins prepared from certain aromatic bases such as aniline, *m*-phenylenediamine, *m*-toluidine, and symmetrical *m*-xylidine, possess marked acid-exchange properties. During the past year experiments have been carried out in this field at Teddington, England. Many samples of resins of the two types have been prepared under different conditions from various phenolic substances and tannins and from aromatic bases.

Some of the best of the base-exchange resins so far obtained were prepared from sulfited quebracho tannin. These resins when used for softening Teddington tap water gave base-exchange values greater than those of commercial synthetic alumino-silicates. On treatment with lime water some of the base-exchange resins took up calcium exide equal to more than 20 per cent of their own weight.

In the experiments with resins made from aromatic bases, there were considerable variations in the acid-exchange values according to the methods of preparation and regeneration of the resins and the solutions used in determining the exchange values.

Further investigation is still required before any definite opinion can be given regarding the possibilities of utilizing the resins on a commercial scale and the suitability for drinking purposes of water treated by the resins. Patent protection has been obtained and licenses have been granted to various firms who wish to develop the processes with a view to their commercial utilization. It is understood that some of the firms are already making a few of the resins on a small scale. *Chem. Trade J. & Chem. Engineer* **100,** 210 (1937).

Whale Oils

Samples of oil were collected from the blubber, inside fat, flash and spine of 11 whales. Saponification values ranged from 190 to 195. Iodine values varied between 82.5 in fats from lean whales and 146 in fats from fat whales. Unsaponifiable substances were highest in oils from thin lactating whales. Solid acids comprise about 25 per cent of the total fatty acids and consist of palmitic acid, some myristic acid and an unsaturated acid, $C_{20}H_{38}O_2$.

Hexabromide values vary closely with iodine values in an averaged mixed oil. If the iodine values are plotted as abscissas and the hexabromide values as ordinates the points group along the straight line, hexabromide values equal 0.531 to 35.1. The unsaturated acids can be separated by debromination in a mixture of three-fourths benzene and one-fourth alcohol to which 5 N hydrochloric acid and zinc dust are added. Vacuum distillation of the methyl esters showed that an extensive series of the acids is present.

A new method of examination is given in which the oil is divided into 3 parts: (1) solid oil separated according to the method of Twitchell; (2) ether-soluble debrominated oil and (3) ether-in-soluble debrominated fatty acids. A detailed comparative analysis of an oil of low iodine value with that of high iodine value showed that the main difference was the low content of ether-insoluble debrominated fatty acids in the oil of low iodine value. Fatty acids present in order of magnitude are oleic, palmitic, linolic, zoömarine, myristic, tetradecenic and small amounts of others, making a total of 15 in all. I. Tveraaen. *Norske Videnskaps-Akad.* Oslo, Hvalradets Skrifter No. 11, 5-48.

Iodine Number in Tropics

Iodine number determinations were made on mahuva, peanut, linseed and sesame oils under conditions where room temperature was 30-36° C. (86-97° F.) for the purpose of selecting the best method. The Hübl method was felt to be too slow; the Wijs method is apt to be unreliable owing to the reactivity of the halogen (substitution reactions occur in which the unsaponifiable matter is apt to be of importance); good results are obtained with the Hanus and Kaufmann methods with the latter preferred because of better reproducibility of results and lesser tendency toward substitution with prolonged time of contact. N. N. Godbole, Sarma, Kamal and Ketkar. *Fette und Seifen* **43,** 155.

Wetting Agents and Detergency

(Excerpts from notes on a symposium held by the British Section of the International Society of Leather Trades' Chemists at the Imperial College of Science, Kensington, England.)

ACCORDING to H. K. Dean, fatty acid salts were the original type of wetting agent. Their stability in hard water, solubility, and wetting power is affected by alterations in the chain length, the introduction of double bonds, formation of amine salts, and sulfonation. The precipitation of soaps by lime can be largely overcome by blocking the carboxylic acid group by admidation, esterification, or reduction to the alcohol. The introduction of a sulfonic acid group is a method applicable to compounds containing a double bond, aromatic ring or halogen atom. Alcohols can be esterified with sulfuric or phosphoric acid, or with organic acids containing solubilizing groups, such as citric and sulfoacetic acids. Amino compounds include an important group of wetting agents. Straight-chain and cyclo aliphatic amines are stable in hard water while many quaternary ammonium salts are effective in acid, neutral or alkaline solution. Cyclic amines, iminazoles, thioazoles or oxazoles form the basis of other agents. Mercaptans and phenols can replace the normal alcohols in many cases and sulfurated petroleum fractions are well known and contain no carboxyl group. Ethers too are employed and have the advantage of insensibility to alkali; the related acetals and the condensation products of aldehydes and amines have recently been utilized.

According to C. Robinson the initial and most important part of the detergent process is the displacement of oily matter from the fibre by the detergent solution. For this action the contact angle made by the oil-solution interface with the fibre must become zero. Emulsification which in general takes place in a detergent bath, is considered as a secondary factor. The conditions required for the displacement of the oil also favor emulsification. Other things being equal, it is probable that a fine emulsion, or one whose drops can be easily distorted, is desirable.

G. S. Hartley dealt with the ability of solutions of detergents of the paraffin-chain salt type to take up considerable quantities of organic liquids and even solids not soluble in water alone. This solvent action is of technical interest in that use is made of it to incorporate with soaps in a convenient manner, certain substances such as cyclohexanol, which have been claimed to be advantageous in detergent processes. The possibility of the solvent action playing a part directly in detergent processes was considered, but shown on quantitative grounds to be improbable in normal operations.

Following along similar lines of investigation, A. S. C. Lawrence stated that many organic substances are more soluble in soap solutions than in water alone. This phenomenon is due to two entirely different causes, although both may be operative simultaneously. Substances soluble in water peptize soap solutions and have their own solubility increased mutually until a saturation value is reached. The second type is that of non-polar substances which dissolve in the interior of the soap micelle. This type of complex is not broken down on crystallization, nor does it affect the chemical behavior of the unchanged exterior polar groups. Saturation depends on the spaces available in the interior of the loosely packed micelles. When the oil is present, their density is increased considerably. Complex molecules of high molecular weight such as oleyl alcohol are intermediate in that the internal solution mechanism is the main factor in taking up the alcohol but the dipole interaction follows.

Wool swells and absorbs detergents and other compounds. Usually a washed wool giving a water extract of pH 9.5 is favored. It is never processed when free from alkaline grease or soap. The experimental work of King suggests that wool will absorb soap more rapidly from dilute solutions, in which the soap is crystalloidal, than from more concentrated solutions in which the soap exists as colloidal aggregates. *Canadian Chem. & Met.* **21,** 71-3 (1937).

◆

Fat from Grape Pomace

Oil and fats from the seeds, stems and pulp of grape pomace amount to about 8.5 per cent and might become an important source of fat in wine-producing countries in case of a fat scarcity. The fat is green in color, melts at 51° C., has a saponification number of 182, an iodine number of 118 and an acid number of 27. Soap prepared from the fat retains the green color. A suggested use is in the natural silk industry. J. Maille de Girves. *Bull. Assoc. Chim.* **54,** 140-6 (1937).

◆

Water Content of Soaps

Weigh into a large crucible 15 grams of stearic acid and 5 grams of soap sample. Mix and heat to 140-5°C. for 45 minutes. Run a blank at the same time on the stearic acid to get the amount volatilized. Calculate the moisture content of the soap from the loss in weight less the amount of stearic acid volatilized. The presence of the stearic acid usually makes atmospheric oxidation negligible. Nikolai Spasskii. *Seifensider-Ztg.* **63,** 795-6.

◆

Perfume Deterioration

Modern perfumes are always complex mixtures and may behave quite differently in soap from what they would in other types of products such as in alcohol or talcum powder. In soap, such chemical changes as saponification of esters or conversion of aldehydes to aldols, polymers or acetals are particularly troublesome. Such changes are often accompanied by discoloration of the soap or by a spotty appearance. I. Herold. *Fette und Seifen* **43,** 156-9.

Products and Processes

Leather Cleaner

The following is a cleaner and polisher for leather. The waxes are melted and mixed together: Ceresin 100 parts, bleached carnauba wax plus bleached montan wax 60 parts, and shellac wax plus ozokerite 15 parts, in addition to coloring matter. Camphor may be added. Aladarne Szabo and Sandor Nits. British Patent No. 456,281.

Hand Soaps

Hand soaps may be prepared by mixing waterglass, glycerine, and a fine-mesh sand into a cold mixture of soda ash, limestone powder and potash soap. Solid, liquid or paste products may be made with these ingredients by varying their proportions. Lajos Kacser. Hungarian Patent No. 115,451.

Lime-Resistant Detergents

Detergents especially suitable for use with textiles, leather or felt are produced from sulfuric esters of alcohols having more than 8 carbon atoms by causing a dilute solution of a sulfating agent in a high-boiling ether to react with a solution of the alcohol in the same ether. Such agents can be produced which foam in acid, neutral and alkaline solutions and possess soluble calcium and magnesium salts. George H. Law and Raymond W. McNamee. British Patent No. 456,214.

Emulsifying Agents

Emulsifying agents for stabilizing aqueous emulsions or suspensions and increasing their hydrophilic capacity consist of esters of higher fatty acids and polyhydric alcohols having at least 1 unsubstituted hydroxy group, into which additional hydrophile groups have been introduced by oxidation or polymerization. As an example, sunflower-seed oil is heated to 175° C. and air is blown through until the viscosity thereof is doubled. The oxidized oil is saponified and the fatty acids are isolated and esterified with a large excess of anhydrous glycerol at 180° C., potassium soap being used as a catalyst. Hans C. Lundsgaard. British Patent No. 455,540.

Germicidal Detergents

Germicidal detergents are obtained by neutralizing soap-forming fatty acids with bases obtained by condensing a phenol with a non-aromatic secondary amine and formaldehyde. In preparing the bases, up to 1 molecule each of phenol and formaldehyde is used per molecule of amine unless the latter contains more than 1 secondary amino group, in which case up to 1 molecule each of phenol and formaldehyde may be used for each secondary amino group in the amine. Röhm & Haas Co. British Patent No. 457,391.

Oil from Soapstock

To separate oil from soapstock, dissolve the latter in 3 volumes of water at 90-5° C. and add 2 per cent of sodium chloride, based on the weight of soapstock. This gives a separation of 90-2 per cent of oil. Addition of sodium sulfate, sulfuric acid or sodium acid sulfate gave inferior results. A. A. Zinov'ev and E. I. D'yakonova. *Masloboino Zhirovoe Delo* **12,** 458-8.

Polymerized Oils for Soap

During recent years various methods have been proposed for polymerizing soybean and fish oils and so rendering them more serviceable as soap-making materials. Most of these have involved subjecting the oil to heat treatment, with or without a catalyst. It has been claimed that such oils give more stable soaps, and are even suitable for the preparation of toilet soaps. A new method of electrical polymerization has recently been proposed, in which the oil is exposed in thin films to a high frequency alternating current of 500-700 oscillations per second. This makes the oil less unsaturated with a decrease in iodine value, but causes no appreciable change in the saponification value. *Perfumery & Essential Oil Record* **28,** 113 (1937).

Glass and Metal Cleaner

A composition for cleaning glass contains monochlorobenzene 60, *p*-dichlorobenzene 5, turpentine 6, absorbent 10 and filler 19 per cent. A composition for cleaning metals contains monochlorobenzene 60, trichloroethylene 8, abrasive 10, absorbent 5 and filler 17 per cent. Pierre P. Schribaux. French Patent No. 802,615.

Cleaning Powder

A cleaning composition contains trisodium phosphate 60, chloramine 5, soda ash 10, sodium perborate 3, borax 2 and soap 20 parts. Francois E. Guillard. French Patent No. 802,782.

Cleansing Liquids

A concentrated solution of a salt of a higher fatty acid along with an electrolyte such as soda ash is diluted with water at the moment of use so as to obtain a more complete hydrolytic dissociation liberating hydroxyl ions progressively and in a permanent manner. The traces of free alkali thus formed give to the solution considerable wetting and cleansing power. Other substances may be added; e.g., 0.5-10 per cent by weight of sodium *p*-toluene sulfochloroamide causes a slow liberation of chlorine and gives the liquid bleaching power. Examples of such liquids are: (1) sodium oleate 8-30 per cent, soda ash solution (14° Be.) 20, potassium carbonate solution (48° Be.) 8 and water 64-42 per cent; (2) potassium oleate 33.4 per cent, soda ash (14° Be.) 24, potassium carbonate (48° Be.) 10, sodium sulforicinate (80 per cent) 2, saponin 0.05 and water 30.55 per

cent; (3) sodium oleate 22.7 per cent, sodium sulforicinate 9.05, sodium *p*-toluene sulfochloroamide 4.55, potassium carbonate (48° Be.) 19.1 and water 44.6 per cent. L'Outillage pour tubes "Rotax." French Patent No. 802.506.

Sulfonated Oil Fractions

In the manufacture of ordinary commercial sulfonated oils from castor and olive oils, the raw oil is usually treated with about 25 per cent of strong sulfuric acid. In the case of glycerides whose fatty acids have either one double bond or one hydroxyl group, this quantity of acid corresponds approximately to 3 moles of sulfuric acid to 4 of the fatty acids. Actual sulfonation however, occurs only to the extent of 25-30 per cent instead of the theoretical yield of about 75 per cent. Hence ordinary sulfonated oil is a mixture of sulfonated fat, unchanged glycerides, free fatty acids, and polymerized oils. Little headway has heretofore been made in fractionating this complex mixture.

A new procedure is given which separates quantitatively (a) sulfo oil, (b) fatty acids, and (c) neutral fat. The method is not affected by admixtures of saponifiable oils, mineral oils, or water, and is applicable to oils of the type of ricinoleic acid as well as oleic acid. A complete fractionation in duplicate can be carried out in about 4 hours. The method depends on extraction under fixed conditions with ethyl ether or petroleum ether. All of the neutral fat and the fatty acids are separated from the sulfo oil by extraction with ether. The ether extract is then neutralized and the neutral oil is extracted in a similar manner. Ralph Hart. *Ind. Eng. Chem., Anal. Ed.* **9,** 177-80 (1937).

Sulfonation Products

Orthoborate esters of a substance such as sperm oil alcohols, oleic alcohols, wool fat alcohols, etc., are treated with sulfuric acid and the resulting product neutralized. Richards Chem. Works. Canadian Patent No. 364.761.

Fatty Acids in Soap

To determine fatty acids in soap, weigh 3-5 grams of soap into a tared 100-cc. beaker, containing a stirring rod, dissolve the sample in boiling water, place on a water bath and acidify to methyl orange with *N* hydrochloric acid. Add a few cc. excess acid and heat until the fatty acids form a clear transparent layer. Weigh accurately 3-4 grams of paraffin melting at 68-72° C. and add. Heat until the stirring rod is clearly visible through the liquid, cool, remove the solidified fatty acids with the rod, wash out the beaker, replace the acids and rod in the beaker, dry at 120° C. and weigh. The average error should be no more than 0.2 per cent. G. Knigge. *Deut. Parfümerie-Ztg.* **22,** 46-7 (1936).

Fatty Acid Advantages

Pure fractionated fatty acids give control of fat composition, give an ease and completeness of saponification, a greater yield of anhydrous soap, and greater uniformity of the finished product. M. L. Sheely. *Natl. Petroleum News* **28,** No. 44, 26-8, 30.

Purified Metasilicate

Technical crystalline sodium metasilicate hydrate contaminated with free caustic soda, is purified by mixing with a sodium silicate solution of a composition and in an amount such as to transform said free alkali into a solid sodium metasilicate hydrate. Canadian Industries, Ltd. Canadian Patent No. 365,050.

Hardened Castor Oil

Strongly hydrogenated castor oil, melting at 62-66.5° C. and having an iodine number of 3, contained stearic and monohydroxystearic acids, in addition to about 10 per cent of other acids. The two acids mentioned are essentially derived by the hydrogenation of the ricinoleic acid, either by the saturation of the double bond or the reduction of the hydroxy group. In the former case stearic acid is formed and in the latter monohydroxystearic acid. The end point of the hydrogenation, tristearin, was not identified in the hydrogenated castor oil investigated. It was estimated that the hydrogenated castor oil contained about 5 per cent of trihydroxystearin, 10 per cent of stearodihydroxystearin and 75 per cent of distearohydroxystearin, in addition to 10 per cent of incompletely hydrogenated glycerides. A. Bömer and Fr. Brehm. *Z. Untersuch. Lebensm.* **72,** 1-34.

Fats for Shaving Soaps

It has long been customary to incorporate in shaving soaps a substantial proportion of stearin, which contains a mixture of stearic and palmitic acids. This is saponified with caustic potash. It is now possible to replace stearin with other fatty acids which, while not quite as hard as stearin, are suitable for the purpose. Distilled palm oil fatty acids, for instance, consisting mostly of palmitic acid, may now be obtained odorless and of excellent whiteness. Myristic acid, which occurs as a glyceride in coconut, palm kernel and peanut oils, is now being marketed. *Perfumery & Essential Oil Record* **28,** 112 (1937).

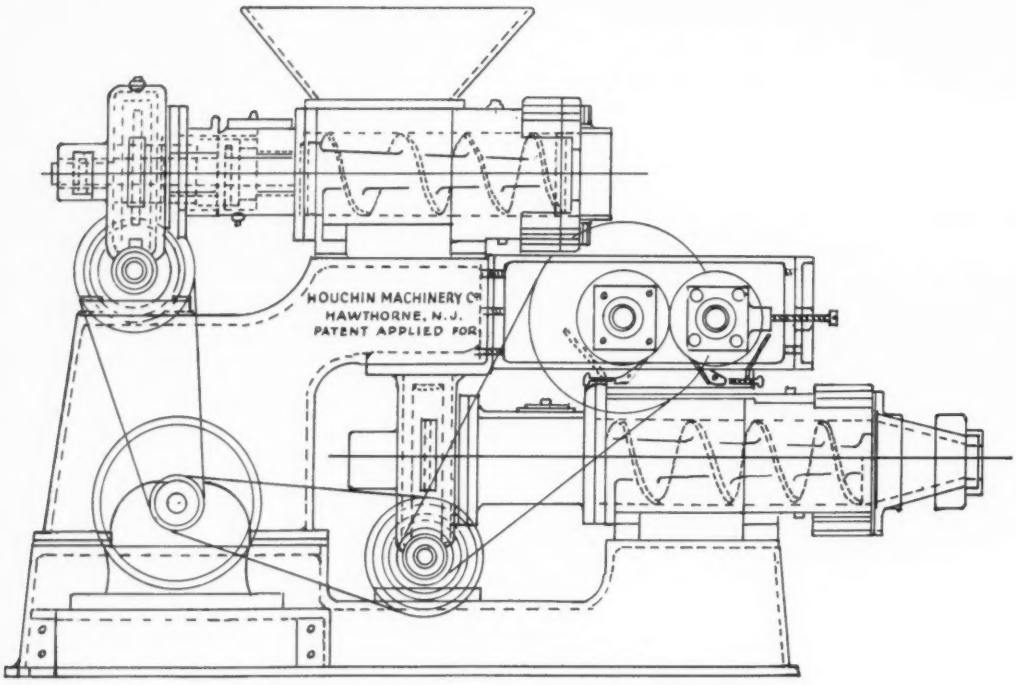
Decolorization of Oils

Decolorization tests on Fang fish liver-oil with various decolorizing agents gave the following comparative results: Darco charcoal, relative decolorizing power 1.00; Norite charcoal 1.10; Fuller's earth 0.80; Mintsing pottery clay 0.50; Tekwa pottery clay 0.75; Beakling pottery clay 1.40. The last three clays are pottery clays obtained from three different districts in Fukien Province, China. Ching-Hao Kan. *J. Chem. Eng. China* **3,** 386-7.

Alcohols by Hydrogenation

Esters such as glycerides and oils as palm and coconut oil are hydrogenated to the corresponding alcohols by the action of hydrogen under a high pressure and temperature and in the presence of a catalyst comprising cobalt and silver or their oxides. Röhm & Haas Co. French Patent No. 802.542.

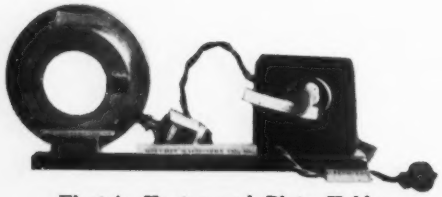
HOUCHIN MACHINERY CO., INC. HAWTHORNE, N. J.



COMBINATION PLODDERS

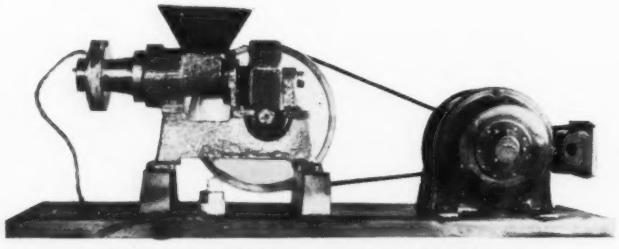
With Double Head and Milling Attachment With Motor

Soap passing through the first time produces ribbons of soap. Second passing produces a fine finished, well compressed bar of Soap. For the second passing, remove Short Head on Second Plodder, bring Long Finishing Head in place. This Head is fitted with our Electric Heater and Plate Holder. A small stream of water passing through Plodder Cylinders and Rolls of Mill keeps the Soap cool, preventing the Soap from blistering. There is no dropping of Soap. The machine is very easily cleaned. It is excellent for short runs of Soap and saves Horse-Power.



Electric Heater and Plate Holder

By using this unit instead of steam, gas or lamp a uniform heat can be maintained. No more blistered soap. Made to fit all Plodders.



Laboratory Plodder, complete with Motor, Electric Heater, and Plate Holder.

Enzymes for Fat Splitting

An enzyme for splitting oils and fats is obtained by treating seeds of plants containing the enzyme or their pressed cakes, (provided the original material contained over 5 per cent of fat), at a temperature less than 50°C. with a normal solution of 0.6 to 1.2 of phosphoric acid, sulfuric acid, hydrochloric or nitric acid. The amount of acid should be between the limits of 40 and 5 per cent of the primary material to form a very soft mass. The enzyme is thereby split off from its associated protoplasm and is recovered in known manner. Etsuo Takamiya. French Patent No. 802.772.

Salt in Sulfonated Oils

After studying the methods for the determination of total inorganic salts in sulfonated oils, the direct method proposed by the Association of Textile Chemists and Colorists is recommended. The principle of the method is as follows: Alkali sulfates and chlorides are quantitatively separated in the form in which they are present in the original sample. The sample is dehydrated in the presence of oleic acid, and the dehydrated residue dissolved in carbon tetrachloride, leaving the precipitate of inorganic salts, which are insoluble. These are filtered off and weighed either dried or ignited. Ralph Hart. *Oil & Soap* **14,** 71-5 (1937).

Hydrolysis of Soaps

The hydrolysis of sodium soaps in aqueous solution can be followed by determinations of pH. and sodium and fatty acid concentration. Experiments showed that with saturated fatty acids, an increase in molecular weight produces an increase in the amount of hydrolyzed soap present. Increased hydrolysis is naturally accompanied by an increase in alkaline reaction. Oleic acid is slightly hydrolyzed; other unsaturated acids show very weak hydrolysis. With an increase in the concentration of stearic acid, the absolute amount of fatty acid increases but not the percentage amount. Increase of the sodium ion content occurs to a much smaller extent.

Addition of low molecular-weight saturated or unsaturated fatty acids to stearic acid brings about an increase in the solubility of the stearic acid with a more marked decrease in the solubility of the low molecular-weight saturated or unsaturated fatty acids. Hydrolysis of the fatty acid mixture is diminished. This helps to explain what happens when coconut oil and other oils are added to tallow in soap manufacture. B. Lustig and F. Schmerda. *Fette und Seifen* **44,** 51-4 (1937).

Soap Stabilization

In order to produce a fine quality toilet soap and have that soap keep its quality, several conditions must be borne in mind.

1. The soap base must be completely saponified before it leaves the soap kettle.

2. Saponifiable fats such as olive oil must not be used for superfatting. The wrong choice of superfatting agent will lead to rancidity development.

3. A suitable amount of free alkali must be present in order to prevent reversal of saponification. Proper drying and chemical analysis also aid in preventing such reversal.

4. Color and aroma are more stable when packing or wrapping is done with green paper of a chlorophyll color. Such packing protects the soap to a certain degree against the harmful effects of light.

5. Unwrapped soap must be stored in a room where the air is reasonably pure and subject to some control. Small amounts of sulfur dioxide (sulfurous vapors), excessive amounts of carbon dioxide, dust, and excess water vapor, are injurious.

While these factors are all of a general nature, it cannot be taken for granted that they are always watched. It is therefore necessary to check up on them so that well-made soap can be kept in its original good condition. Th. Ruemele. *Deutsche Parfümerie Ztg.* **23,** 100-1 (1937).

Metal Cleaner

Mix 120 parts by weight of very finely ground chalk with about 10 parts of crude oleic acid, 8 parts of commercial ammonium carbonate and 12 parts of soda. To this may be added 11 parts by weight of oxalic acid. Andras Kovacs. Hungarian Patent No. 115.327.

Measurement of Detergency

Wetting ability and general detergent properties of soap and related cleaning agents are often expressed in terms of surface or interfacial tension as measured by drop number with a Traube stalagmometer. A modification of this method which is considered simpler is the measurement of the time by means of a stop watch that it takes for the detergent solution to fall from the upper to the lower mark on the stalagmometer. The following comparative results were obtained in this way. Measurements were made at 26° C.

1% Sol.	Av. Drop No.	Av. Time Meas. in Secs.
Marseilles Soap.	97	233
Gardinol Fewa..	88	168
Texapon L	91	179

(*Ed. Note*—The suggested method measures viscosity of liquids, not surface tension. No doubt some parallelism exists between the two properties with certain liquids. It would not hold as a general principle.) H. Hetzer. *Fette und Seifen* **44,** 54-5 (1937).

Bromine Determinations

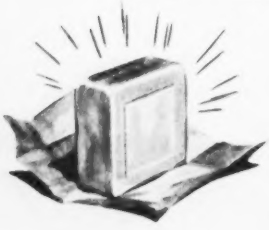
In determining the bromine value of fatty oils by the method of P. Becker, a ground-glass disk with rounded and turned-up edges was substituted for the glass plate in order to get an even coating of oil film. Bromine values obtained in this way with olive, Tsubaki, peanut, rapeseed, Shoshi, tallow, lard, whale, sardine and liver oils agreed well with iodine values obtained by the Wijs method. Sesame, soy, linseed, shale, blubber and hydrogenated soybean oils varied 2-6 units from the Wijs value, castor oil 7-8 units, and polymerized sardine oil 20 units. Eiichi Yamaguchi, T. Matsumura and Tomo-o Takagi. *Waseda Applied Chem. Soc. Bull.* **13,** No. 4, 7-11, 61.

Soap marches on to new achievements . . .

Soap is one of the world's most effective antiseptics. Its widespread use is a little recognized but important factor in man's growing emancipation from disease and plague.

The women of America are going "soap and water" according to beauty editors. They have discovered that nothing takes the place of soap cleansing in promoting natural skin loveliness.

Soap that contains valuable vitamins . . . a new development in medication, promising much for the future.



Few other products are both so old and so new. One of man's early cultural developments, soap, under the hand of the chemist, each day assumes new, more convenient, more effective, more pleasing forms.

SOLVAY

TRADE MARK REG. U. S. PAT. OFF

. . . signal factor in the growth of the soap industry

● Since 1881 Solvay has pioneered in supplying soap manufacturers with raw materials conforming to the highest standards. Today, in an era of rapid new development, soap makers large and small continue, with reason, to place their confidence in Solvay.

CAUSTIC SODA • SODA ASH • CAUSTIC POTASH
CHLORINE • CAUSTICIZED ASH • PARA-DICHLOROBENZENE
POTASSIUM CARBONATE • AMMONIUM BICARBONATE
MODIFIED SODAS • CALCIUM CHLORIDE
AMMONIUM CHLORIDE • SODIUM NITRITE • SALT

SOLVAY SALES CORPORATION • *Alkalies and Chemical Products Manufactured by The Solvay Process Company* • **40 RECTOR STREET, NEW YORK**

Branch Sales Offices: Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Indianapolis, Kansas City, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis, Syracuse

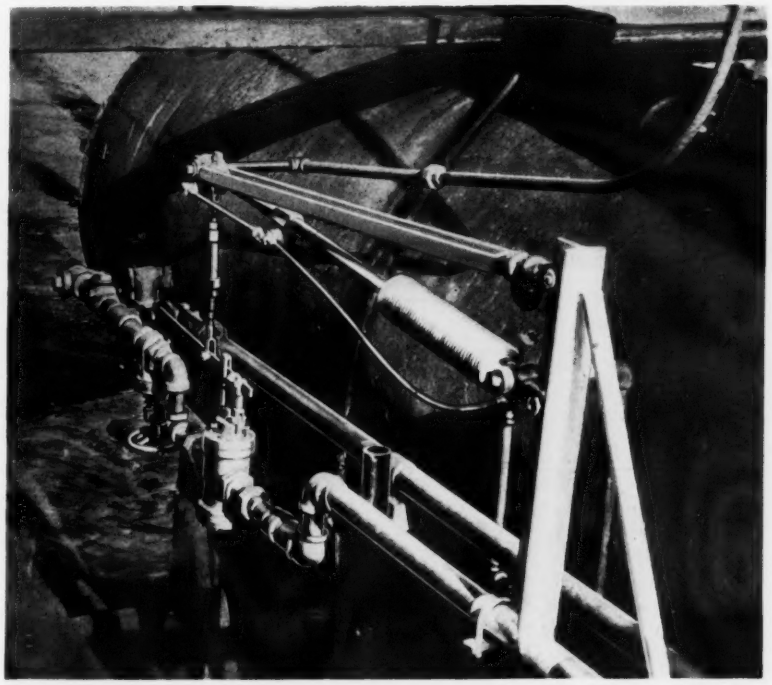
New Equipment

IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., write to the MacNair-Dorland Co., Inc., 254 West 31st St., New York, mentioning the number of the item.

340—Boiler Level Control

J. A. Campbell Co., Long Beach, Calif., announces development of a new feed-water level control with extreme sensitivity to maintain levels within one-half inch. It is made in one size to meet all boiler needs and will operate any valve up to 12 inches. Its overall length is 48 inches and it can be operated with or without a whistle. The photograph shows the controller mounted on a fire-box boiler. A different mounting is provided for return tubular and water tube boilers.

There are many applications for the controller other than in boiler-feed regulation. According to the manufacturer, it is being successfully adapted to the replacing of steam traps for discharging condensed steam from evaporators and stabilizer reboilers. The condensate is discharged at a rate equal to that of formation, and no steam blows through. A bulletin describing this improved type of controller is available.



Publications

341—New Expeller

V. D. Anderson Co., Cleveland, has just announced development of the Anderson Super Duo Oil Expeller. In the new model the main worm shaft operates at one speed throughout, eliminating trouble from bearings between the worm and the shaft. A new patented hopper feed has replaced the old quill worm or feed worm. A folder describing various features of the new machine, and contrasting them with older models is available.

342—Coconut Booklet

Coconut Research Scheme, Ceylon, has just issued an illustrated booklet on the coconut palm, dealing with uses of coconut products both in Ceylon and world commerce. The illustrations show various stages in growth of the palms as well as uses of coconut products. Copies are obtainable at 75c each.

343—New House Organ

Roure-Bertrand Fils & Justin Dupont, Paris, France, represented in United States by George Silver Import Co., New York, have just issued the first number of a new house organ under the title, *Recherches*. It is a very attractive 36-page book. Among the articles is one on "Flowers and The Love of Flowers." Market information and technical notes are included, as well as information about the latest perfume specialties introduced by Roure-Bertrand Fils & Justin Dupont.

344—Price List

Dodge & Olcott Co., New York, has just issued a new price list and catalog on essential oils and perfuming materials as of April, 1937.

345—Rug Cleaning Book

Mathieson Alkali Works, New York, has recently published a 48-page booklet, "Making Rug and Carpet Cleaning Pay," by V. M. Kalusdian. It is a practical handbook containing new data on rug cleaning methods, together with merchandising suggestions. Copies are available to rug cleaners, or others interested in the field.

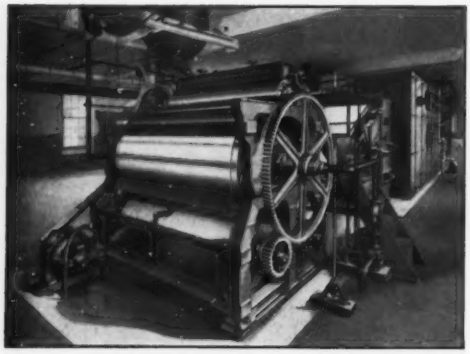
347—Brazilian Gums

A booklet "Copaes do Brasil" has just been published by Instituto Nacional de Technologia, Avenida Venezuela, 82, Rio De Janeiro, Brazil. Written in Portuguese, it gives much information about the production and properties of various Brazilian copal gums.

Continental Can Income

Net income of Continental Can Co., New York, for the twelve months ending March 31, 1937, was $13,594,092, equivalent to $3.18 a share on the common stock.

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



● New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

● The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

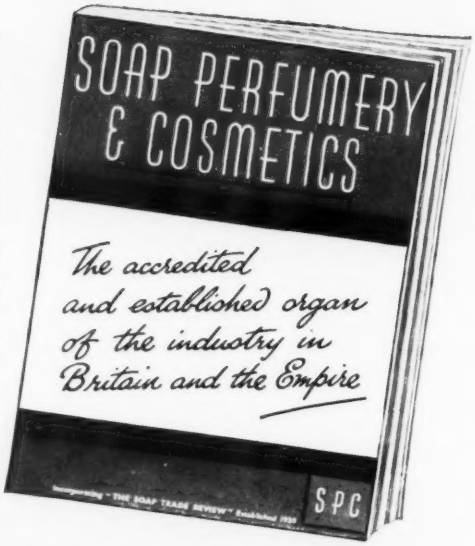
PROCTOR & SCHWARTZ, INC.

• SEVENTH ST. & TABOR ROAD PHILADELPHIA •

The English market

The United Kingdom and the British Empire offer profitable fields for sales expansion. Many well-known American manufacturers are concentrating on this market. If you are interested why not become a subscriber to "Soap, Perfumery and Cosmetics" —the only British trade paper produced exclusively for manufacturers of soaps and cosmetics.

The "S. P. C." is more than a trade paper—it provides a thorough marketing service for its subscribers. It will give you help in finding the right manufacturer to produce your goods—it will put you in touch with selling agents and advertising agents. It will collect and forward information and render other useful services entirely without charge. A year's subscription costs you only $3.00 (or $5.00 for 2 years). Why not send in your subscription now for two years? Send us your check or international money order.



Write for FREE sample copy.

Soap Perfumery and Cosmetics

Incorporating The Soap Trade Review

102-5 Shoe Lane, Fleet Street, London, E. C. 4, England

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th Sreet, N. W.,
Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,072,332, Method of Dry Cleaning, Patented March 2, 1937, by Arthur Edward Hatfield, Toronto, Ontario, Canada. A process of dry cleaning including the steps of dehydrating an organic solvent, incorporating a material capable of rendering fabric water-repellent with the dehydrated solvent, washing fabrics in the anhydrous solution to remove greasy soil and to render the fabrics water-repellent, incorporating water with the solvent and washing the fabrics in the humidified solvent to remove water-soluble soil from the fabrics.

No. 2,072,824, Castor Oil Soap, Patented March 2, 1937, by Oney P. Puryear, Beacon, N. Y., assignor to The Texas Company, New York, N. Y. The method of preparing an oil-soluble castor oil soap product, which comprises forming a mixture of castor oil and castor oil soap, the mixture being normally insoluble in mineral lubricating oils, heating the mixture to a temperature of around 500° F. and maintaining the temperature for sufficient time to vaporize a portion of the mixture in sufficient amount to render the mixture soluble in mineral oil.

No. 2,073,054, Soaps from Oxidized Non-aromatic Hydrocarbons, Patented March 9, 1937, by Hans Franzen, Mannheim, Germany, assignor to I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, Germany. The process of producing pure soaps from oxidized non-aromatic hydrocarbons of high molecular weight which comprises dissolving the oxidized hydrocarbons in a water-insoluble solvent, treating the solution obtained with an aqueous solution of a water-soluble alkaline-reacting substance in the presence of a lower aliphatic alcohol, separating the aqueous solution and extracting therefrom the unsaponifiable constituents by means of a water-insoluble solvent.

No. 2,073,464, Detergent Composition, Patented March 9, 1937, by Wheeler P. Davey, State College, Pa., assignor to Hercules Powder Company, Wilmington, Del. A detergent, penetrating and wetting composition including as ingredients substantially pure alpha-terpineol in amount not substantially less than 50%, sodium oleate in amount not substantially in excess of 37%, and water in amount not substantially in excess of 40%, the ingredients being relatively proportioned so as to give a clear solution.

No. 2,073,923, Stabilizing Soap, Patented March 16, 1937, by Ernest C. Crocker, Belmont, and Lloyd F. Henderson, Reading, Mass., assignors to Arthur D. Little, Incorporated, Cambridge, Mass. The art of stabilizing soap against rancidity and discoloration induced by copper and iron cations, which act catalytically to promote oxidation of ingredients of the soap, which comprises incorporating in the soap a reagent containing the radical of the formula

$$-OOC-(CH_2)n-CH(NH_2)-COO-$$

in which n = 1 or 2 in sufficient amount completely to react with the copper and iron cations contained in the soap to be treated.

No. 2,075,359, Insecticide, Patented March 30, 1937, by Paul Lawrence Salzberg and Euclid Wilfred Bousquet, Wilmington, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. An insecticide comprising a fluosilicate of an organic base.

Sodium Metaphosphate in Dishwashing

According to a recently completed investigation of Mellon Institute, the utilization of sodium metaphosphate represents an important contribution to both esthetic and sanitational progress in machine dishwashing. The results of a bacteriologic study of dishes washed in restaurants under routine operating conditions indicate the superior sanitary quality of dishes cleaned with an alkaline detergent containing sodium metaphosphate. This superiority is not attributable to the germicidal action of sodium metaphosphate but to its specific function in preventing the deposition of films of insoluble alkaline-earth salts and soaps. Film formation in dishwashing is a source of great concern to health and restaurant officials because such films form an ideal environment for bacterial growth. The utilization of the film-preventive function of sodium metaphosphate constitutes a novel and significant improvement in dishwashing sanitation. Copies of the research report are available from Mellon Institute, Pittsburgh, Pa.

Soap Product Preferences

(*From Page 27*)

families using washing powder as compared to 4.6 per cent last year.

Consumer preferences for the different brands are given below:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Gold Dust	76.1%	70.9%	69.2%
Magic	4.9	—	—
Johnson's	3.3	4.6	5.6
Kao	2.7	4.0	1.7
Star	1.9	2.3	3.6
Watkins	1.4	1.7	2.0
Superior	1.0	1.1	5.6
Wonderine	1.0	—	—
Miscellaneous	9.1	16.2	13.9

Scouring Powders

WHILE the percentage of families using scouring cleansers has fallen off from 90.8 per cent in 1936 to 89.6 per cent this year, the decrease in the total number of families using this product has been negligible, due to a compensating population increase. Users this year numbered 168,581 families. These families used an average of 2.8 cans per month for the year ending January 15, 1937. The average monthly consumption has been the same for the last four years.

After a recession in 1936, Kitchen Klenzer improved its first place ranking with an increase from 39.5 per cent of all users to 42 per cent this year. Old Dutch, in second

. . . *a leading authority*

on the manufacture of Drugs, Pharmaceuticals, Cosmetics, Toilet Preparations, Photographic Materials, Soaps, Fine Chemicals, Essential Oils, Perfumes, Dental Preparations, Patent Foods; Medicines in Liquid, Powder, Paste Pill and Tablet, Polishes, Antiseptics, Germicides, is

The MANUFACTURING CHEMIST

Cream and Liquid Face Powders
by G. H. ALLEN

Obsolescence in the Chemical Industry
by T. McLACHLAN

The Ageing of Perfumes
by J. AUGUSTIN

The Treatment of Foot-ache and Local Bromidrosis
by F. G. HOBART

Conditioned Air in the Drug Industry
by J. ENGELS

Skin Whitening Preparations: Their Composition and Manufacture
by H. STANLEY REDGROVE

Common Insecticides: Their Composition and Uses
by L. E. CAMPBELL

Avocado Oil
by R. BUSHBY

The Production of Odorous Substances by the Aid of Micro Organisms
by H. NICOL

Subscription

10/-

per annum
Post Free

Also publishers of
Food Manufacture
Paint Manufacture
Food Industries Weekly
Indian & Eastern Druggist
Food Industries Manual
The Rubber Industry
Chemical Industries
and Technical Books

Published monthly by

LEONARD HILL LIMITED
17, Stratford Place, London, W. 1, ENGLAND

place, enjoys a preference of 26.1 per cent as compared with 23 per cent last year. Gold Dust Cleanser again is preferred by 8.3 per cent of all families buying this type soap product, and moves from fourth to third place in the preference chart. Sunbrite has dropped from third to fourth place with 7.2 per cent popularity.

The complete list of brand preferences follows:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Kitchen Klenzer	42.0%	39.5%	44.9%
Old Dutch	26.1	23.0	21.8
Gold Dust	8.3	8.3	8.5
Sunbrite	7.2	11.6	12.9
Brite-Ize	5.8	6.6	1.2
Bab-O	4.8	4.8	3.8
Bon Ami	3.7	4.1	5.0
Lighthouse	3.3	3.6	3.8
Miscellaneous	1.7	2.1	1.8

Shaving Cream

ORDINARY shaving cream has been declining yearly in popularity in the Greater Milwaukee market, presumably because of competition from the brushless creams. However, the regular creams apparently must charge part of their loss this year to the introduction of electric razors which do not require the use of shaving creams or lather.

Regular shaving cream is used by 128,847 or 48.7 per cent of all Greater Milwaukee men this year as compared with 136,367 or 51.9 per cent in 1936. Likewise, average consumption per man has declined from 6.5 tubes or jars annually for the year ending Jan. 15, 1936, to 6 tubes or jars per year for the following 12-month period.

Palmolive shaving cream, perennial leader, again occupies first place in the preference chart. This brand shows an increase from 33.9 per cent of all users in 1936 to 35.6 per cent this year. The total number designating Palmolive as their favorite brand has decreased, however, because fewer Greater Milwaukee men are buying regular shaving cream this year.

Lifebuoy shaving cream remains in second place in the table, increasing its popularity from 26.8 per cent in 1936 to 28 per cent this year. Williams, in third place, has a preference of 8.1 per cent of all users as compared with 9.9 per cent in 1936. Colgate's regular shaving cream remains in fourth place, although this brand has decreased in popularity from 6.5 per cent in 1936 to 5.8 per cent this year.

The complete list of preferences is as follows:

Brand	Per Cent of All Men Buying This Type Product Who Use Each Brand 1937	1936	1935
Palmolive	35.6%	33.9%	38.9%
Lifebuoy	28.0	26.8	17.0
Williams	8.1	9.9	11.4
Colgate	5.8	6.5	7.9
Mennen	5.6	3.9	4.0
Ingram	4.0	4.2	3.7
Peau Doux	3.2	3.0	3.9
J. R. Watkins	1.6	2.2	1.8
Listerine	1.4	1.7	1.7
Miscellaneous	8.5	10.1	11.4

Brushless Shaving Cream

BRUSHLESS shaving cream has been making continuous gains in the Greater Milwaukee market since first introduced. This year, however, the use of brushless cream shows a decrease, presumably because of the increasing popularity of electric razors, which require no shaving cream or other soap preparations.

The latest figures show that brushless shaving creams are now used by 48,946 or 18.5 per cent of all Greater Milwaukee men as compared with 50,973 or 19.4 per cent in 1936. Yearly consumption per man has declined from 6.6 jars or tubes for the year ending Jan. 15, 1936, to six tubes or jars yearly for the succeeding 12-month period.

Burma Shave again ranks first in the preference chart, increasing its popularity from 24.1 per cent of all users in 1936 to 26.6 per cent this year. Molle, in second place, also shows a gain from 15.1 per cent of all users in 1936 to 16.2 per cent this year. Barbasol has dropped from second to third place in the table, declining in popularity from 22.1 per cent of all users in 1936 to 16 per cent this year. Palmolive, a comparatively new product in the brushless shaving cream field, has jumped from sixth to fourth place, increasing in use from 4.4 per cent in 1936 to 9.5 per cent this year.

The complete list of brand preferences follows:

Brand	Per Cent of All Men Buying This Type Product Who Use Each Brand 1937	1936	1935
Burma Shave	26.6%	24.1%	26.9%
Molle	16.2	15.1	17.5
Barbasol	16.0	22.1	23.7
Palmolive	9.5	4.4	—
Koolox	9.2	11.2	7.9
Mennen	4.2	2.0	2.3
Prep	3.7	5.2	5.7
Williams Glider	2.5	1.6	1.2
Colgate	2.3	2.3	—
Krank's	2.3	2.8	3.3
Carma	1.7	2.8	2.0
Miscellaneous	7.1	7.7	11.5

Liquid Shampoo

LIQUID shampoo, covered for the first time in this year's Consumer Analysis, is found in four out of 10 Greater Milwaukee homes. This product is being used by 74,130 families in this market.

The annual purchases of the average Greater Milwaukee family amounted to 4.7 bottles for the year ending January 15, 1937. Family purchases were selected from among the 169 brands reported in use as of January 15, 1937.

Drene shampoo, a comparatively new product in the market, is in first place with a consumer popularity of 28.8 per cent. J. R. Watkins is in second place in the brand preference chart with 17.3 per cent use. Fitch's shampoo ranks third in the table, securing the purchases of 11.4 per cent of all users. Fourth place is held by Mar-O-Oil shampoo, which has 6.8 per cent popularity. Palmolive shampoo is in fifth place with 6.7 per cent consumer use.

The twelve leaders are grouped as follows:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937
Drene	28.8%
J. R. Watkins	17.3
Fitch's	11.4
Mar-O-Oil	6.8
Palmolive	6.7
Wildroot	3.5
Mulsified Cocoanut Oil	2.1
Kreml	1.6
Packer	1.4
Hoyt	1.2
Olivilo	1.2
Jewel	1.1
Miscellaneous	18.0

Mrs. Smith Knows Nothing . . . .

about Peet-Grady tests, and probably thinks pyrethrum is a disease.

BUT—she knows what she wants, and it's good business for you to see that she gets it.

When she buys liquid insecticides, 1937 model, Mrs. Smith demands, along with supreme killing power:

Complete freedom from "kerosene breath" and assurance against staining

DEO-BASE

Reg. U. S. Pat. Off.

The modern deodorized base for liquid insecticides enables you to give your customers an insecticide with *good manners.*

L. SONNEBORN SONS, INC.

REFINERS OF WHITE OIL AND PETROLATUM

Refineries: Petrolia and Franklin, Pa. Research Laboratories: Petrolia, Pa. and Nutley, N. J.
Manufacturing Plants: Nutley, N. J.

NEW YORK
88 Lexington Ave.

LOS ANGELES
215 West 5th St.

CHICAGO
400 West Madison St.

STOCKS CARRIED IN PRINCIPAL CITIES

SANITARY PRODUCTS

A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS

JOHN POWELL & CO., Inc.

Specialists in Pyrethrum & Rotenone

114 EAST 32nd STREET **NEW YORK, N. Y.**

Prentiss Policy

IN offering our products and our technical advice and service to the manufacturers of agricultural and household insecticides an occasional re-statement of our cardinal sales policy becomes advisable.

Our function is that of supplying the botanical insecticide materials to manufacturers for conversion into finished insecticides and our technical information is completely at the disposal of our customers. We, ourselves, do not manufacture or sell finished insecticides and do not compete with our customers directly or indirectly.

POWDERED CUBE AND DERRIS

(Both 4% and 5% Rotenone Content)

PYRETHRUM POWDER

DERRIS, CUBE and PYRETHRUM CONCENTRATES

R. J. Prentiss & Co., Inc.

100 GOLD STREET NEW YORK, N. Y.

POPULARITY

Odor determines popularity, and the experience of Norda in other lines doubly assures you of scent gradations—modern—in keeping with the times—and thus most popular.

Write for samples and prices.

★

DICHLOROMES NORDA

For Paradichlor Benzene

Series A $1.00	*Series B* $1.50	*Series C* $2.00
Bouquet A	Bouquet B	Bouquet C
Lilac A	Lilac B	Lilac C
Rose A	Rose B	Rose C
Violet A	Violet B	Violet C
Sweet Pea A	Sweet Pea B	Sweet Pea C
Gardenia A	Gardenia B	Gardenia C

SECTOROMES NORDA

For Fly Sprays

$.50 *lb.*	$1.00 *lb.*
Sectorome No. 1	Sectorome No. 11
Sectorome No. 2	Sectorome No. 22
Sectorome No. 3	Sectorome No. 33
Sectorome No. 4	Sectorome No. 44
Sectorome No. 5	Sectorome No. 55
Sectorome No. 6	Sectorome No. 66

Norda

ESSENTIAL OIL and CHEMICAL COMPANY

Chicago Office
325 W. Huron St.

Los Angeles Office
685 Antonia Ave.

St. Paul Office
Pine and E. 3rd St.

Canadian Office
119 Adelaide St., W., Toronto

New York Office
601 West 26th St.

Southern Office
Candler Annex Bldg., Atlanta, Ga.

YOUR OPPORTUNITY

to produce a better

PERFUMED FLY SPRAY

USE

MIMOXENE
VEROXENE

. . . the modern scientific way to perfume fly sprays . . . at less than 3 cents per gallon

Write for samples and further information relative to Mimoxene and Veroxene—the super effective Kerosene and Petroleum Distillate odorizers.

P. R. DREYER INC.

12 EAST 12th ST. NEW YORK

It's the odor that

sells the Product

For bigger insecticide profits...

ADD SELLING POWER TO KILLING POWER

DILUTES CLEAR

Improved Pyrocide 20 dilutes so clear in deobase or any other base oil that you can actually read print through 12 inches of the solution.

PRACTICALLY ODORLESS

Because new Improved Pyrocide 20 has little odor to cover up, you reduce your perfume costs by as much as ½ to ⅔—a real saving.

WILL NOT STAIN

When diluted, Improved Pyrocide 20 will not stain. A worthwhile selling advantage for any household insecticide.

NO matter what killing agent you are now using in your household insecticides, consider for a moment these facts about Improved Pyrocide 20:

Improved Pyrocide 20 is the *original* standardized pyrethrum concentrate. Its guaranteed pyrethrin content is 2.4% by weight, or 2 grams per 100 c.c. This assures uniform killing efficiency. But Improved Pyrocide 20 has even more than this; it has killing power plus selling power.

Improved Pyrocide 20 dilutes clear with any base oil, making possible a spray of brilliant clarity. It is nearly odorless, cutting your perfume costs from ½ to ⅔ and producing a product with more pleasing aroma. It will not stain when diluted, an important sales factor in any household insecticide.

Improved Pyrocide 20 has been thoroughly tested in the laboratory and in the field. It has proved its extra value in hundreds of insecticides. Yet it costs no more than ordinary concentrates.

Consider these facts. Consider what killing power plus selling power can do for your household insecticides. Then write McLaughlin Gormley King Company, Minneapolis, Minnesota, for money saving information.

Improved PYROCIDE 20

THE ORIGINAL STANDARDIZED PYRETHRUM CONCENTRATE

*PARADOW

(PURE PARADICHLORBENZENE)

leads

With a Parade of Sizes

DOW

OTHER DOW CHEMICALS

Coumarin — Methyl Salicylate — Methyl Anthranilate — Phenol — Dowicides (Disinfectants, Fungicides) — Caustic Soda — Carbon Tetrachloride — Ethylene Dichloride — Propylene Dichloride — Orthodichlorbenzene and over 300 others.

*Trade Mark Registered U. S. Patent Office

PARADOW is regularly made in six sizes—from fines to quarter-inch crystals and special sizes are available on order.

This unlimited adaptability of PARADOW to the individual requirements of deodorant and moth preventative products is, in part, responsible for its favoritism.

The balance of preference comes from the always dependable quality manufacturers have learned to expect of PARADOW.

Let us demonstrate the decided advantages of PARADOW. Complete information, samples and quotations on request.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

Branch Sales Offices: 30 Rockefeller Plaza, New York City—Second and Madison Streets, St. Louis—135 South La Salle Street, Chicago

SAVE YOURSELF DOUBLE

IN MONEY AND TROUBLE

WITH

PARATINTS

IF you make Paradi blocks, bath salts or moth balls, PARATINTS will slice your coloring and scenting troubles and cost in two. They do both jobs in the same time it takes you to do either separately—and at the same cost! Moreover, they do both better. They're already mixed in the right proportions to give you uniformly excellent results. Why not take advantage of their double-duty action? Samples are available in six popular colors — all matched with appropriate scents, that efficiently cover the odor of paradichlorobenzene.

Series A ..... **$2.00 a pound for use where cost is an important consideration**

Series B ..... **$4.50 a pound for use where the highest perfume value is a necessity**

GIVAUDAN

DELAWANNA INC.

80 FIFTH AVENUE, NEW YORK, N. Y.

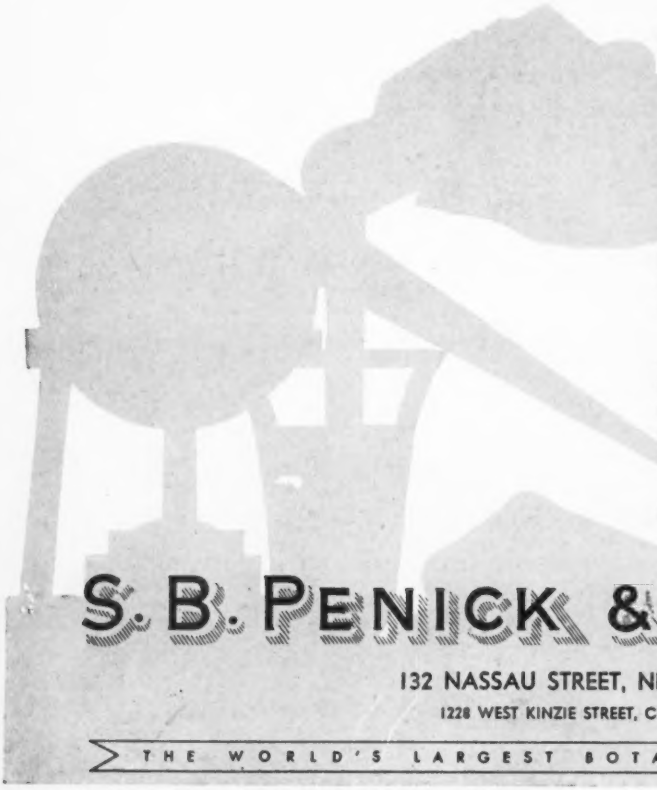
Branches: Philadelphia Los Angeles Cincinnati Detroit Dallas Barrington
New Orleans Chicago San Francisco Seattle Montreal Havana

SCIENTIFIC PRECISION

makes

PYREFUME

The Perfected PYRETHRUM CONCENTRATE



Leading laboratories in this country and abroad confirm the accuracy of the Tattersfield-Seil method followed by our laboratories in the evaluation of Pyrethrins in Pyrethrum Flowers.

Not satisfied, however, with merely "calculating" the Pyrethrins content of the extract from this assay of the *flowers*, we also test the *extract itself* by an exclusive process which enables us to guarantee a Pyrethrins content of 2 grs. per 100 cc. in PYREFUME SUPER 20 and 3 grs. per 100 cc. in PYREFUME SUPER 30. In addition, the toxicity of PYREFUME is tested physiologically in our own Peet-Grady chambers.

As the largest botanical drug firm in the world, our vast physical resources and modern laboratories enable us to keep abreast of latest developments in all phases of the industry. Penick products are universally accepted as products of unquestioned quality.

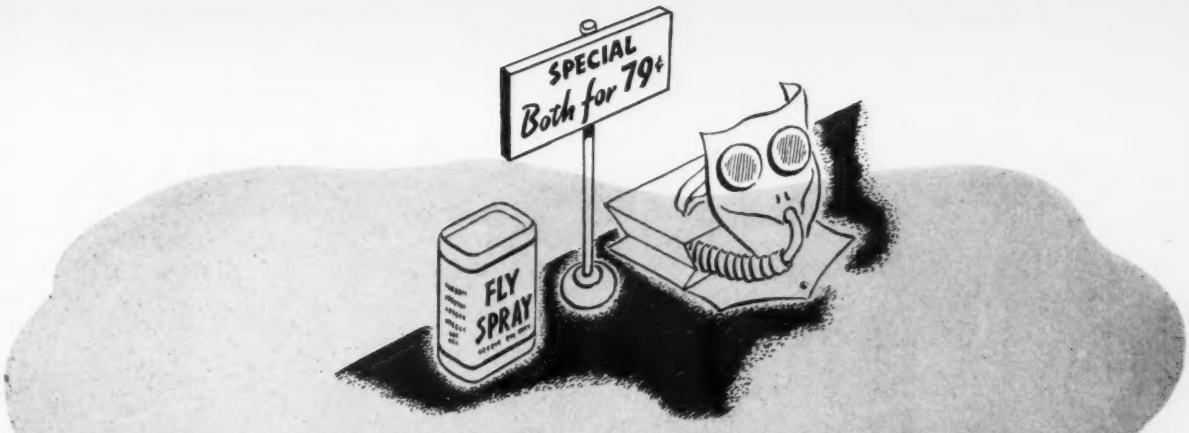
Call on us for technical data on all types of insecticides.

S. B. PENICK & COMPANY

132 NASSAU STREET, NEW YORK

1228 WEST KINZIE STREET, CHICAGO

THE WORLD'S LARGEST BOTANICAL DRUG HOUSE



GAS MASKS AND FLY SPRAY

If gas masks were merchandised with fly sprays and customers wore them in waging battle against insect pests, manufacturers would find one of their most important production and marketing problems eliminated. No longer would it be necessary to perfume fly sprays pleasantly. No longer would it be advantageous to impart clean, fresh outdoor odors that impress the buyer properly.

BUT gas masks and fly sprays do not go hand-in-hand!

For many years the Felton Chemical Company has been engaged in producing fly spray perfumes and neutralizers that actually *sell* merchandise through correct nose appeal. The entire KEREX line represents the most modern, most effective means of building lasting sales volume and consumer demand. Put it to work for you without delay!

Use Felton Fly Spray Perfumes & Neutralizers To Improve Your Products!

KEREX L'ORIENT
KEREX BOUQUET
KEREX CHERIE
VITAFLOR No. 758
A powerful neutralizer

WRITE FOR SAMPLES NOW!

FELTON

Chemical Company INC.

603 JOHNSON AVENUE, BROOKLYN, N. Y.

Manufacturers of AROMATIC CHEMICALS, NATURAL ISOLATES, PERFUME OILS, ARTIFICIAL FLOWER AND FLAVOR OILS

Executive Offices and Factory: 603 JOHNSON AVE., BROOKLYN, N. Y.

Boston, Mass. 80 Boylston St. | Philadelphia, Pa. 200 So. 12th St. | Sandusky, Ohio 1408 W. Market St. | Chicago, Ill. 1200 N. Ashland Ave. | St. Louis, Mo. 245 Union Blvd. | New Orleans, La. Balter Bldg. | San Francisco, Calif. 512 Washington St. | Los Angeles, Calif. 515 So. Fairfax Ave.

Get Acquainted With Your Copy of the New SOAP BLUE BOOK

The 1937 SOAP BLUE BOOK is the one complete buying guide for the soap and sanitary products industry. It tells manufacturers and users of these products not only what and where to buy, but also HOW to buy. The following reference articles —all included in the new 1937 BLUE BOOK —give valuable pointers on the purchasing and testing of soaps and sanitary products, as well as the raw materials used in their production.

Soap Market Survey—An analysis of buyers' preferences in the purchase of soap, based on a recent consumer analysis of the Milwaukee market.

Water Hardness Statistics—The tabular matter and map of United States tell what water condition must be faced in different localities.

Fly Spray Labels—Advice as to what to put on your label, and what **not** to put on it.

Testing Toilet Soap—A review of the methods in use by a well-known department store, one of the largest soap buyers in the country.

Furniture Polishes—An analysis and evaluation of the different types of furniture polish.

Insecticide Testing—Complete text of the Peet-Grady Test, accompanied by instructions for making the new and official comparative grading.

Disinfectant Testing—Full text of the F. D. A. method.

How To Buy Sanitary Specialties—A symposium by leading sanitary products manufacturers showing how quality may be substituted for price as a measuring stick.

Federal Specifications—For a complete range of soaps, polishes, cleaning compounds, chemicals, etc.

Tariff and Excise Rates—Giving rates on soap oils as imposed by the new 1936 laws.

Soap Index—Covering every issue for the past three years, 1934, 1935 and 1936.

Association Officers—Listing officers of eight associations closely identified with the soap and sanitary products field.

Charts and Tables—Temperature conversion table; soap oil constants; fatty acids in soap oils; value of caustic soda solutions.

Shipping Terms—Glossary of common shipping terms.

Social Security Act Data—Instructions on payments for employee and employer, as well as amount of employee pension or cash value for various sums earned.

Non-subscribers may obtain a free copy of the new 1937 SOAP BLUE BOOK by entering a year's subscription to SOAP now. Cost for SOAP and the BLUE BOOK—$3.00. This offer good as long as limited BLUE BOOK stock lasts.

MAC NAIR-DORLAND CO.

254 W. 31st Street *Publishers* **New York**

ANALYTICAL TESTS PROVE THE UNIFORMITY

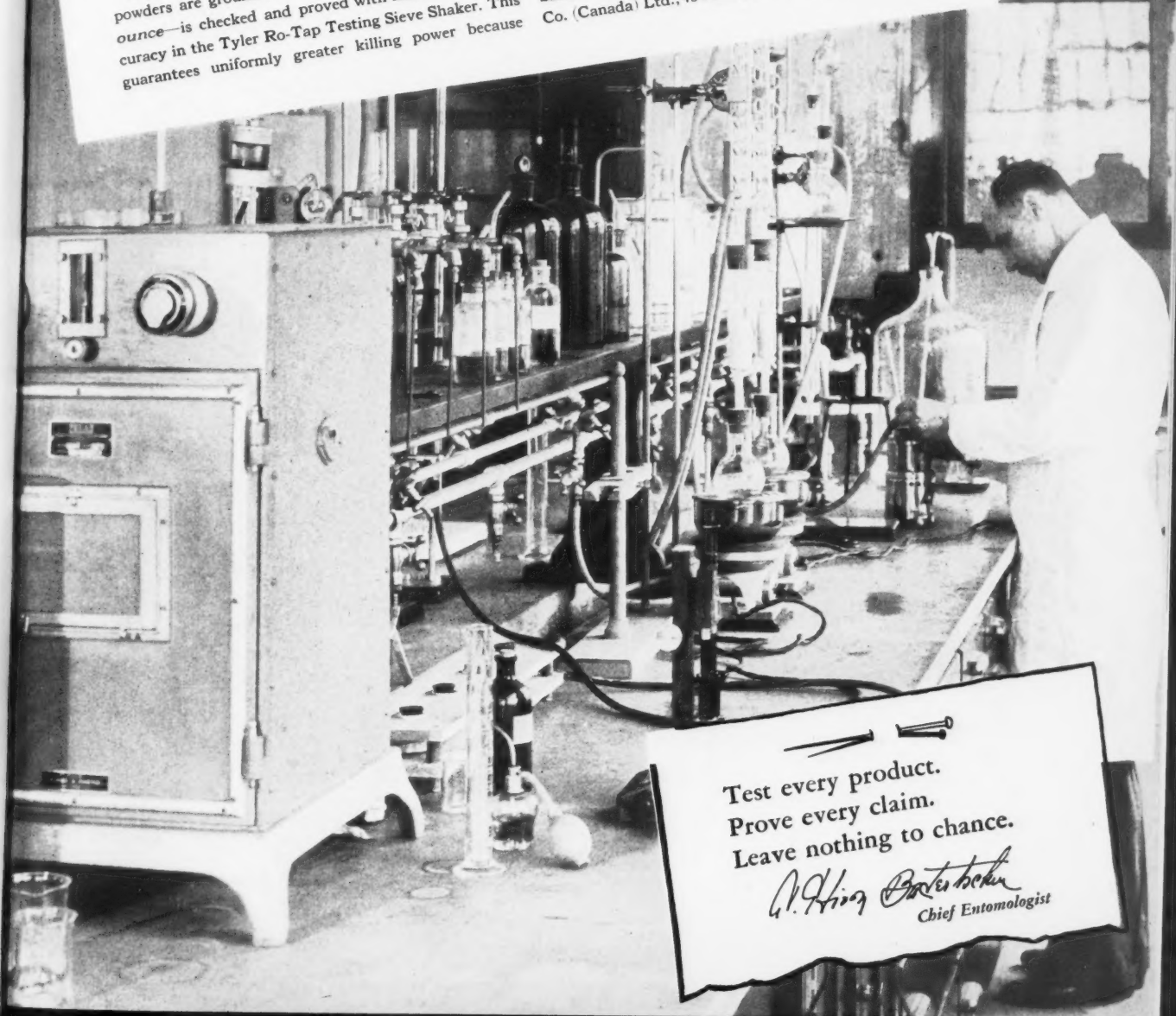
OF EVERY LOT OF McCORMICK'S PYRETHRUM AND DERRIS POWDERS

McCORMICK produces the finest milled Pyrethrum and Derris Powders in the world. They are standardized both analytically and biologically in the McCormick laboratories—the most complete testing laboratories in the insecticide industry.

And the *fineness* of every lot—the fact that these powders are ground into *more killing particles per ounce*—is checked and proved with mathematical accuracy in the Tyler Ro-Tap Testing Sieve Shaker. This guarantees uniformly greater killing power because there are more lethal particles per ounce to come into contact with vital parts of the insect.

(McCormick also produces Pyrethrum and Derris Powders which are stabilized to prolong their toxicity when exposed to light and air). Our recommendations for the use of these powders are based upon actual performance in extensive field tests.

For further information, address: The McCormick Sales Co., Baltimore, Md. In Canada: McCormick & Co. (Canada) Ltd., 454 King Street, West, Toronto, Ont.



Test every product.
Prove every claim.
Leave nothing to chance.

Chief Entomologist

McCormick's STANDARDIZED PYRETHRUM AND DERRIS PRODUCTS

PYRETHROL 20 • PYRETHRUM POWDER • DERRIS POWDER
DERRIS EXTRACT • DERRIS RESINATE • ROTENONE CRYSTALS

Short Cuts to PERFUMING ECONOMIES

M. M. & R.
S. T. Aquasol Bouquets

For preparations which do not contain alcohol, strong alkalies, or acids, we recommend S. T. Aquasols MM&R. They dissolve clearly in water, insuring ease in compounding and thorough distribution.

S. T. Aquasols are compatible with the ordinary formaldehyde solutions, as well as formaldehyde sprays, liquid soap, etc.

A wide range of odors is available in this type of Water Soluble Perfumes, and we particularly recommend ——————→

BLUEBELL BOUQUET

CORYLOPSIS No. 602

PINE BOUQUET SWISS TYPE

LAVENDER BOUQUET

TREFLE

CHYPRE No. 29

AGMERE BOUQUET

LUXOR BOUQUET

SPEARMINT HLI.

MAGNUS, MABEE & REYNARD, INC.

QUALITY ESSENTIAL OILS, BALSAMS, AROMATIC CHEMICALS, BASIC PERFUMES, FLAVORING MATERIALS . . . SINCE 1895

32 CLIFF STREET NEW YORK, N. Y

OFFICES IN PRINCIPAL CITIES

Drive THRU RESISTANCE INTO Sales!
On store shelves and counters, there's a LEADER of the Line · a PACKAGE that edges to the front. That product *can* be Yours! ● Turn MORE display power into your merchandise. FORCE it into dealer and consumer minds · SHOW it at its BEST!
CRACK DOWN HARD
with PACKAGE accent on
● APPEARANCE
● CONVENIENCE
● CONTENTS VALUE
Call "NATIONAL" into your Packaging Plans·
NATIONAL
Can! break down
SALES RESISTANCE!
NATIONAL CAN CORPORATION
SUBSIDIARY OF McKEESPORT TIN PLATE CORPORATION
EXECUTIVE OFFICES • 110 EAST 42nd STREET • NEW YORK
Sales Offices and Plants ● NEW YORK CITY • BALTIMORE • MASPETH, N Y.
CHICAGO • BOSTON • DETROIT • HAMILTON, OHIO

Three Outstanding Features
of all Baird & McGuire

INSECTICIDES

ALL TYPES

for the wholesale trade only

BAIRD & McGUIRE, Inc.

HOLBROOK, MASS. ST. LOUIS, MO.

New York City and New Jersey Representative

EASTERN STATES SUPPLY CO., 127 Troutman Street, Brooklyn, N. Y.

Phone: EVergreen 8-2498

National Association of INSECTICIDE and DISINFECTANT MANUFACTURERS Incorporated 1914

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

WHENEVER any particular group of business men attempts by the medium of legislation to increase the flow of trade in their particular channels at the expense of some other group or groups, it appears that in the end they frequently defeat their own purposes. For some years, the retail druggists of the country have been notorious for their attempts to legislate more business into the drug stores. Laws to restrict the sale of this and that to the retail pharmacy have been numerous. They have been on the books of some states for years,—in some cases, they have been enforced and in others they have not. The manufacturers of disinfectants, insecticides, and allied products have upon occasion been annoyed by this restriction of the free movement of their goods through the grocery, hardware, and other retail channels.

And while they have been vigorous in their attempts to restrict others, retail druggists have expanded their own lines to include almost everything from lawnmowers to toys. They have gone into the restaurant business with a vengeance,—and it was this foray out of the drug field which brought retaliation from the restaurant men of Colorado. In that state, a law was passed some time ago which requires that where drug stores serve food, the lunch counter must be completely separated from the rest of the store by a partition. The druggists fought this law all the way to the United States Supreme Court, which sustained it. Now other states are considering the adoption of similar legislation.

The retail druggist started this group warfare,—started it back twenty years or more. While attempting to restrict his competition by law, he himself has expanded into a dozen new fields. Now, his own idea is coming back to snap at his heels. Probably before he is through, he will be sorry that he attempted to boost his own business via the legislative route.

—♦—

IN spite of all warnings, we note a new flood of small packages of naphthalene and paradichlorbenzene products this spring on the labels of which the broad promise of protection against moth damage is stated or implied. One-pound perforated tin containers to hang in clothes closets to prevent moth damage are being offered in a hundred-and-one different styles. With rare exceptions, they all give the impression to the casual observer that by hanging in a clothes closet, they will prevent damage to clothes by killing the moth. One product,—about a pound in a perforated can,—states that it is "effective" in 84 cubic feet of confined space. By "effective," we judge it means to kill the moths. This, of course, is untrue. And to the average person, a clothes closet is a "confined space." Some others state in small type that they will kill moth life if used in the proportion of one pound to each ten cubic feet of confined space. This gets the product within the law,—but on a two or four-ounce cake, it is right on the border line of fakery. It fails to state on the two-ounce cakes, for example, that for use in an ordinary closet of seventy or eighty cubic feet, *fifty or sixty* of these cakes would be required and the closet would have to be sealed shut in order to obtain real moth protection.

The Department of Agriculture has issued a number of warnings on the labelling of products of this type, but year after year, manufacturers make the same mistakes, either ignorantly or intentionally. They are inviting the Department to "crack down" on them. When this happens, there will be no excuses, for warnings have been issued often enough for any manufacturer to avoid trouble if he will take the necessary care to do so.

WHAT ODOR

PERIODICALLY the question of fly spray odor comes up for serious, and sometimes heated discussion among insecticide manufacturers. Opinion as to the importance of odor varies among manufacturers all the way from zero up to holding first place as the single most important factor in the sale of any insecticide. Some hold that non-staining, high killing power, quick evaporation, and other points are more important than odor,—at least this appears to be evident from some of the products on the market today. With the advent of odorless insecticide base oils, the odor problem has been simplified to a great extent for some manufacturers, and quite distinctly complicated for those who still continue to use an odorous base.

Odor in a liquid insecticide presents a many-sided problem. It is one which must be considered from the angle of the consumer, and from that of the manufacturer. It must be considered from the angle of pleasant odors, unpleasant odors, and no odor at all. Only since odorless oils have been available, have there been odorless insecticides, and these in fact, are not truly odorless, because even where the oil is completely without odor, the added insecticide material, whether it be pyrethrum extract or something else, gives the product a slight, but nevertheless readily discernible odor.

The comments and conclusions set down here come after discussing the problem of odor with housewives, hotel and restaurant people, and other industrial consumers, and with a considerable number of insecticide manufacturers. The manufacturers who appear to give comparatively little thought and less attention to the odor of their products, are surprisingly numerous. This is rather unusual because in discussing the subject with housewives and hotel housekeepers, unpleasant and objectionable odor seems to be the greatest stumbling block in the path of wider insecticide consumption. Apparently, the views of consumers as put forth in an expression of opinion to a disinterested observer, are not the same as those which have been observed by some manufacturers, — or else the manufacturers choose to ignore the opinions of users, or are compelled to do so by circumstances.

To get a clear idea of the part which odor plays in the liquid household insecticide picture today, it is

for Liquid Insecticides?

perhaps best to look back into the beginnings of the fly spray business. Originally fly sprays were made by extracting either powdered or granulated pyrethrum flowers with ordinary kerosene, and that was back in the days when the run-of-the-mine kerosene had anything but a pleasant odor at best. The ground pyrethrum was placed in a drum or tank at about one pound to the gallon of oil, stirred up occasionally for several days, permitted to settle, and the finished fly spray was decanted off,—an extravagant and wasteful procedure. Later on, percolation with regular drug percolating equipment was used. The pyrethrum was extracted with the full volume of oil used in the finished product. There were no pyrethrum extracts or concentrates. There were no odorless oils, or even partly deodorized oils. Regular kerosene of various and sundry odors was the accepted base. Sometimes, the product killed the bugs, and sometimes, it did not. At all times it smelled badly, and thus came the first problem of covering the bad odor as effectively as possible, with little thought of producing a spray with a pleasant odor. Coverage of the kerosene was the paramount problem, primarily so that the consumer would not recognize the kerosene odor and know what he was buying.

Low cost was the main thought in seeking the first liquid insecticide odors,—low cost plus sufficient power to cover the kerosene. One of the first products which suggested itself was nitrobenzene, or oil of myrbane. This worked in cheap shoe and other polishes,—so why not in a fly spray? It was used in some products and is still used in a few of the poorest and cheapest. The first serious thought to decent perfuming and odor covering turned to methyl salicylate, and sassafrassy camphor oil. In spite of the power of these odors and the quantity which their low cost permitted to be used, the rankness of the ordinary kerosene lasted longer than the perfume. They did an effective job of covering when used in sufficient quantity, but they,—or any other perfuming material,—can not combat fully the drawbacks of a rank kerosene. However, methyl salicylate, the first odor which might be called a perfume to be used in fly sprays, has stood the test of time. It is still probably the most widely used odor in liquid insecticide manufacture.

AN interesting sidelight on on the use of methyl salicylate in insecticide perfuming is the experience of some manufacturers who switched to other perfuming materials in order to give their products a more distinctive odor,—a distinguishing odor. The case of one manufacturer comes to mind. He decided to give his regular brand spray an odor which was superior to methyl salicylate from the perfume angle, and also to put out a new lower cost brand, using a methyl salicylate combination odor. He happened to sell much of his material in the middle-southern states, and apparently his customers liked the strong odor of methyl salicylate, —four ounces to the gallon to be exact,—for he received many complaints when he changed the odor. An investigation revealed that the odor of methyl salicylate had been associated with liquid insecticides for so long in the minds of the consumers

You wouldn't do this!

But you can do this:

• • give women household insecticides that are safe and pleasant to use . . . AT NO ADDITIONAL COST

Years ago, chemists at McLaughlin Gormley King believed that fast selling household insecticides of the future would have to do more than kill insects. They foresaw a demand for insecticides that would not offend delicate nose and throat tissues. Would not taint the flavor of foods when used in dining room and kitchen. Would not stain.

Improved Pyrocide 20 is the result of this foresight — and two years of patient work. Today many insecticide manufacturers have discovered that with Improved Pyrocide 20 they can make household insecticides that do step up sales for the simple reason that their products then meet all modern requirements.

The odor of Improved Pyrocide 20 has been reduced to a point where you can cut your perfume costs ½ to ⅔. Improved Pyrocide 20 dilutes clear with any base oil, making a finished spray of brilliant clarity. And when diluted, it will not stain. Yet Improved Pyrocide 20 delivers uniformly higher killing power because it has a guaranteed pyrethrin content of 2.4% by weight, or 2 grams per 100 c.c.

This improved, standardized pyrethrum concentrate has been thoroughly tested in the laboratory and in the field. It has proven its extra value in hundreds of household insecticides now on the market. Yet it costs no more than ordinary concentrates. If you are not already using Improved Pyrocide 20, learn more about it by writing McLaughlin Gormley King Company.

If you need a pyrethrum concentrate with minimum taste and practically odorless, except for the aroma of pyrethrum flowers, get Improved ODORLESS Pyrocide 20, selling for only 15c a gallon more than Improved Pyrocide 20. Its pyrethrin content is the same.

McLaughlin Gormley King Company

MANUFACTURING CHEMISTS • • MINNEAPOLIS, MINNESOTA

of this particular product that they evidently had no faith in any product which smelled otherwise. They insisted that it was not the same product and did not do the work as well as the stronger-smelling original insecticide.

Other cases of a similar nature were reported. Among the colored people of some parts of the South, methyl salicylate or sassafrassy camphor used in sufficient quantity to give a strong odor to the insecticide was found to be essential if the product were to sell. In the poorer sections of several large cities, investigation brought out the same point,—and in the last analysis, the slums of most cities represent a better market for household insecticides than do the Park Avenues. Where the percentage of foreign born population is large, and where suspicion is easily aroused by any change in a product, a sudden switch in odor might conceivably have a serious effect on sales.

To look at the other side of the picture, one must consider the use of liquid insecticides by hotels, restaurants, and the better class of private homes. They must be considered not only as an insecticide against flies, but for use against moths, roaches, and bedbugs, as well as other insects. In these cases, a residual tell-tale odor almost amounts to a ban against any product, more so today then a few years back,—and no manufacturer should close his mind to this fact. No home, hotel, or restaurant wants to advertise that they have just undertaken to kill the insects on the premises. Possibly, in hotel or home, the spraying has been against moths, or in a restaurant, it has been a daily spraying against flies. But who knows this? The suspicion that the campaign might be to rid the place of bedbugs, or of cockroaches is just as likely to be aroused by any odor which is commonly associated with a bug killer.

Just two years ago at a meeting of insecticide manufacturers, the head of a well-known firm upon arriving for the meeting was shown to his room in the hotel. He entered the room with the bell-boy and the strong odor of kerosene was the first thing which impressed itself upon him,—a residual odor of kerosene, as the covering perfume had disappeared,—and he refused to occupy the room. He felt quite certain that there had been bedbugs in that hotel room, and although the room had quite evidently been treated with an insecticide, he was not sure whether or not some of the bugs might have survived. In fact, his knowledge of the hardiness of the bedbug, and the usual inexpert and insufficient application of insecticides by hotel employes, quite thoroughly convinced him that the chances were better than even that some bedbugs still remained. It is indeed surprising that a hotel management which would greet even the mention of the word "bedbug" with raised eyebrows, would permit such a thing to occur,—but it still continues to happen although there is no excuse for it in this day and age.

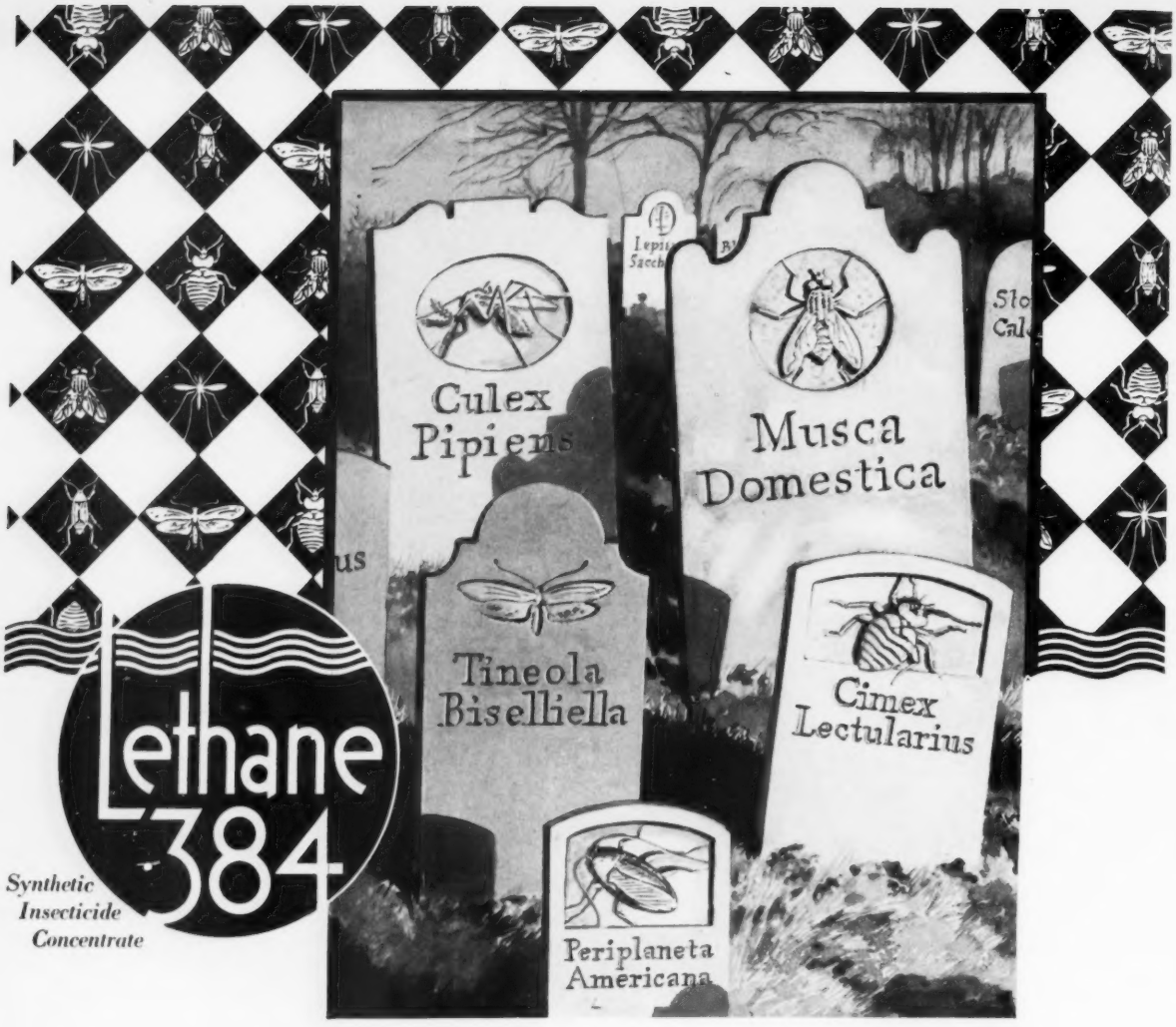
THERE is no reason why anything should be taken for granted by the manufacturer in going into the problem of odor. He can best submit his problem in concrete form to a jury,—first making sure it is a disinterested jury which will tell him the truth, and one over which he has no influence whatsoever. He then has two questions to answer, the first having to do with disagreeable odor, and the second with the perfume. Quite obviously to any but the prejudiced, an odorless base of correct distillation range (roughly 350° to 500° F.), and meeting other requirements of flash point (125° F. or above), non-staining, etc., is to be preferred to any oil with a petroleum odor, no matter how free such an oil is of rankness or other disagreeable qualities. Deodorized oils are growing by leaps and bounds in popularity because they give products which do not have the initial handicap of bad odor to overcome.

The second question has to do with the correct perfume for a liquid spray,—and how much. If a manufacturer has a trade which wants "an insecticide that smells like an "insecticide,"—meaning methyl salicylate, or sassafrassy camphor, or some combination of these, he would be foolish indeed to fly in the face of his customer's demands and change his odor,—even though the trend among the better grade products has been toward lighter and more expensive odors. Whether or not a manufacturer is using a deodorized base or some other oil also has a very important bearing on the perfume. Where a strong odor is needed to cover the oil, naturally the door is closed to the finer perfumes. Not only would they be lost in the aroma of kerosene, but the use of a sufficient quantity would entail a prohibitive expense. Imagine, if you will, using four ounces of a three or four dollar odor in a gallon of liquid insecticide! Maybe some of the "magicians" of the insecticide industry might be able to work this out, and even sell it on a government bid, but most certainly the average manufacturer would not get very far.

Consider briefly the wide range of uses of liquid insecticides, and then the complications of the perfume problem are understandable,—which may account for the reason why some manufacturers still hesitate to leave the old stand-bys. A manufacturer is called upon to select an odor for a single product which may be used in (1) a hotel bedroom against bedbugs, (2) a bakery, or restaurant against flies, (3) a clothing store against moths, (4) a canning plant against roaches, (5) in the home against these and others, etc. Imagine the irate husband finding that all his suits had been sprayed with a nice oriental bouquet,—or how would this same bouquet taste on the bread in the bakery? Multiply these problems by a hundred or two and there is the picture of perfuming a liquid insecticide for general use.

A few rules, however, based mostly on common-sense and observation of consumer reactions, can be laid down. For the all-purpose small-package product, the odor should be as light and as fleeting as possible,—

(*Turn to Page* 123)



DEATH TO ALL...

DOES the insecticidal principle you are using give outstanding results against flying and crawling insects?

The use of LETHANE 384, the dependable synthetic concentrate, will make your product efficient against a wide variety of insect pests both in quick knockdown and high percentage kill.

Use Lethane 384 for Household, Exterminating, Cattle and Mill Sprays

RÖHM & HAAS COMPANY, INC.

222 West Washington Square, **PHILADELPHIA, PA.**

930 N. Halsted St., Chicago, Ill. 215 W. Pershing Rd., Kansas City, Mo.
P. O. Box 98, Oakland, Calif.

Thallium Hazards

Danger of thallium salts, now more widely used in rat and ant products, requires greater care than other control poisons, to avoid notoriety.

By Dr. James C. Munch*

Senior Pharmacologist, Bureau of Biological Survey, U.S.D.A.

THE use of thallium as a rodent poison apparently originated about 1920, when a company in Germany introduced a proprietary rat poison that had thallium as its toxic principle. Our studies of thallium began in 1924, and quickly led to confirmation of the toxicity of thallium products for wild and white rats, as well as for rabbits. Studies were instituted under very carefully controlled conditions, upon a field scale (chiefly in the western United States), for the control of certain species of prairie dogs and ground squirrels, that had refused to consume strychnine baits. Simultaneous laboratory and field tests showed that thallium products might be expected to prove effective as rodenticides. At the same time our pharmacological studies, as well as a review of the literature, demonstrated the cumulative toxicity of thallium, and impressed us with the necessity for extreme care in preparation and distribution of thallium baits such as "thalgrain".

As a result of these studies, we concluded (Tech. Bull. No. 238, U.S.D.A., April 1931, page 21): "Thallium is among the most toxic substances recommended for rat control: comparative tests with other rat poisons by the same feeding method give the following minimum lethal doses:

	Mg. per kgm. of body weight
Thallium	25
Strychnine	20-25
Arsenious oxide	100
Red-squill powder	250
Barium carbonate	750

"Thallium is a cumulative poison of high toxicity and is without taste, smell, or other warning property. It should not be recommended to the public as a rodent poison. Where the use of thallium is found necessary for the control of highly resistant species of rodents, it should be entrusted only to persons who understand its dangerous qualities and who will exercise appropriate care in handling it."

The increased use of thallium on a series of rodent control projects indicated the possibility of safely using this poison in California under the "Crew System". We trained men to appreciate the hazards of thallium, and to handle it as poisons should be handled. Care in opening packages, in preparing solutions for addition to selected baits, cleanliness in handling equipment and clothing, the use of rubber gloves to protect the hands, prevention of inhalation of powdered material, prevention of swallowing food or drink without properly washing the hands and face first, proper methods of drying and packaging thallium-poisoned baits were developed. Suitable methods of selecting baits were worked out so that the treated thalgrain was selectively consumed only by the animals to be controlled, and was not taken by other animals in the area (so far as humanly possible).

As you might anticipate, a number of problems required solution to reduce the hazards associated with preparation and with distribution of these products. Certain lots of commercial thallium products contained traces of impurities. Poor acceptance of baits was observed. This led to greater purity of materials, so that commercial thallium products now are purer than Ivory Soap. The proper concentration of thallium compounds in baits had to be determined. The earlier work in Hawaii was done with torpedoes of grain containing 0.1 per cent of thallium sulfate. Because of the inadequate control obtained, our subsequent studies there indicate the necessity for using a 1 per cent thallium product. The use of 1 per cent thalgrain in California produced adequate control of ground squirrels. Kellogg reports an increase in Santa Barbara county alone from 36 tons of grain in 1923-24 to a maximum of 162 tons in 1926-27, which was subsequently

* Address before Professional Exterminators' Assn., N. Y., April, 1937.

KOPPERS is a familiar and trusted name to many thousands of business men in many fields of enterprise. It not only produces chemical raw materials such as Tar Acids (Cresol, Phenol, Cresylic Acid), Tar Acid Oils, Naphthalene and Neutral Hydrocarbon Oil . . . it is also a designer and builder in many industrial fields, a producer of many types of materials, including coal, coke, machinery and mechanical devices; a manufacturer of many special products and a distributor of others. Koppers means something to almost every business man, and to all of them it means reliability, dependable products and fair dealing. Use Koppers products.

PRODUCTS OF THE TAR AND CHEMICAL DIVISION

TAR ACIDS
Cresol, U.S.P.
Phenol
Cresylic Acid
98% to 100%, Straw Color

TAR ACID OILS

NEUTRAL
HYDROCARBON OIL

NAPHTHALENE

PRODUCTS OF THE WHITE TAR COMPANY OF NEW JERSEY, INC.

REFINED NAPHTHALENE

Crushed, Crystals, Powder, Lump, Chips, Flakes. For use in manufacture of deodorizing blocks, moth preventives and other insecticides.

Also Naphthalene in Balls, Blocks, Tablets.

COAL TAR DISINFECTANTS

Co-efficients 2 to 20 plus, F.D.A. Method

CRESOL AND CRESYLIC DISINFECTANTS

PINE OIL DEODORANTS

CRYSTAL AND BLOCK DEODORANTS

LIQUID INSECTICIDES

DEODORIZING BLOCKS

Pressed Naphthalene or Paradichlorobenzene. Various sizes and shapes, Perfumed and plain. Bulk industrial packages, retail packages.

OTHER KOPPERS PRODUCTS

Benzol (all grades)
Toluol (Industrial and Nitration)
Xylol (10° and Industrial)
Solvent Naphtha
(including High Flash)
Phenol (82% and 90% Purity)
Shingle Stain Oil
Refined Tars
Pitch Coke
Industrial Coal Tar Pitches
Flotation Oils

Creosote
Tanks and Tank Work
Benzol Recovery Plants
Naphthalene Removal Apparatus
Phenol Removal Apparatus
By-Product Gas Plants
By-Product Recovery Apparatus
Sulphur Recovery Apparatus
Coal Tar Roofing Materials
Waterproofing and Dampproofing
Materials

Tarmac Road Tar Materials
Bituminous Base Paints
Coal
Coke
Fast's self-aligning Couplings
Western Fire Hydrants
American Hammered Piston Rings
Gas, Air and Water Valves
Treated Lumber
D. H. S. Bronze Castings
Special Machinery

KOPPERS COMPANY · PITTSBURGH, PA.

KOPPERS

KOPPERS DIVISIONS—American Hammered Piston Ring Division . . . Bartlett Hayward Division . . . Engineering and Construction Division . . . Gas and Coke Division . . . Tar and Chemical Division . . . Western Gas Division • KOPPERS SUBSIDIARIES AND AFFILIATES—Eastern Gas and Fuel Associates . . . Hiler Engineering and Construction Company, Inc. . . . The Koppers Coal Company . . . Koppers-Rheolaveur Company . . . The Maryland Drydock Company . . . The White Tar Company of New Jersey, Inc. . . . The Wood Preserving Corporation.

decreased to 30 tons annually, or less.

Outbreaks of thallotoxicosis following exposure to Koremlu focused my attention on the potential dangers to humans from non-rodentical exposure. My 1934 report is based on an extensive search of the literature up to that time. Following industrial exposure, 12 persons were affected but no deaths occurred. Following clinical use, 692 persons were affected, and 31 deaths resulted. Of this group, it is interesting to note reports on 8,006 children given thallium acetate as a depilatory in single doses ranging between 4 and 10 mgs.-kg.: 447 were poisoned and 8 died. The other deaths followed improper use of depilatories. Following external application of thallium ointments containing 3 to 8 per cent of thallium acetate, a number of women were poisoned. Detailed clinical case reports were furnished me upon 51 of these patients, and have been followed up in some detail.

The toxicological literature showed 53 persons poisoned, either as cases of suicide or murder, and 10 deaths resulted. Many of these suicides and murders were accomplished with the use of paste or grain containing thallium, originally manufactured and sold for rodenticidal use. Following exposure of rodenticides, 21 persons have been affected and 5 have died. A 2½ year old child died, while a 4½ year old child survived following consumption of an unknown quantity of bread coated with thallium paste and improperly exposed as a rat poison. Following the consumption of Zelio grain, containing approximately 2 per cent of thallium sulfate, 4 persons were affected and 2 died. Five children survived consumption of thalgrain improperly stored in a barn. A family of six consumed a mush made from thalgrain, and the 15-months old baby died with typical symptoms.

On or about January 10th, 1932, a Mexican laborer illegally procured a 100-lb. bag of thalgrain from a locked official warehouse near Fresno, Calif., and distributed it to several Mexican families. The thalgrain was ground and used in the preparation of tortillas which were consumed by 51 men, women, and children. Symptoms developed in 20 within one to three days; 14 were hospitalized. Of these 14, 6 refused treatment, and died of primary thallotoxicosis within sixteen days; 8 accepted treatment and recovered. The thalgrain contained 0.9 per cent of thallium sulfate: the flour 0.75 per cent; tortillas about 2 mg. (1/30 grain) each.

These cases presented a well defined clinical picture of abdominal colic, nausea, vomiting and diarrhea or constipation, stomatitis, alopecia, peripheral neuritis, and symptoms referable to cerebral involvements (ptosis, strabismus, convulsions, myoclonic or choreiform movements and optic atrophy). Post-mortem examinations on the 6 patients who died showed no characteristic blood changes; the gastro-intestinal tract was markedly inflamed: the kidneys showed marked hyperemia, cloudy swelling and degenerative changes of the cells of the glomeruli and the tubules; fatty infiltration of the liver cells with a tendency to central necrosis; and the lungs showed hyperemia, alveolar distension; and a suggestion of bronchial pneumonia. The suprarenal glands showed hyperemia, medullary hemorrhage, necrosis and nuclear disintegration. Profound engorgement of the cortical blood vessels, chromatolysis in the neurons, localized edema, and hyperpyrexia were observed as evidences of brain injury.

Thallium was recovered from the kidneys, liver, lung, heart, spleen, intestine and bone, in quantities ranging from 3 to 11 parts per million of fresh weight. Methods for the detection and determination of thallium have been developed (J. A. Ph. A. May, 1935).

Studies on animals led to the development of antidotes, which proved successful in the treatment of these California patients. The treatment should be handled only by qualified physicians. It consists in treatment with sodium iodide, sodium thiosulfate, pilocarpine, calcium salts, and hydrochloric acid.

To answer specific criticisms that we were sterilizing the soil in Hawaii and in the California areas, by the distribution of thallium baits, investigations were undertaken (Circular 409, U. S. D. A., Nov., 1936) showing that the addition of thallium compounds up to ten parts per million of soil, equivalent to 1,000 pounds of thalgrain per acre, had no injurious effects on vegetation, and in some instances stimulated plant growth. Larger amounts occasionally caused injury. We concluded that: "Under the conditions used in the control of rodents by properly trained personnel, no evidence of injury to vegetative growth by thalgrain has been found".

Because of the danger of thallium to all animal life, greater care is required in using it than in using other control poisons. Continual emphasis upon care and caution in connection with the use of thallium compounds for the control of rodents is necessary to avoid notoriety.

—— ♦ ——

Thallium Antidotes

The belief is quite widespread among manufacturers of insecticide and rodenticide products containing thallium salts, usually thallium sulfate, that there is no antidote for thallium poisoning. This, however, is not the case, according to the work of Dr. J. C. Munch, outstanding American authority on thallium who is senior pharmacologist of the U. S. Biological Survey. It has first been pointed out that treatment for thallium poisoning is a matter for the physician, and not for the layman. Because thallium chloride is insoluble, first emergency treatment is the administration of ordinary table salt. Because of their current interest in connection with the use of thallium salts on a wider scale commercially, the recommendations of Dr. Munch for the treatment of thallium poisoning, made in 1934 before the American Pharmaceutical Association, are reproduced.

"Based on a knowledge of the chemical behavior and toxicity of thallium compounds, various drugs were administered in attempts to counteract the poisonous effects.

Odocene

For FLY Sprays

ODOCENE is an entirely new type of fly spray odor, having a clean, refreshing scent that is universally pleasing.

The remarkable covering power of Odocene makes its use particularly desirable where economy without sacrifice of odor is paramount.

Make your own tests with Odocene and be convinced of its superiority.

PRICE

$2.50 per lb.

SAMPLES

Sample furnished upon request, together with full information.

PERFUME SPECIALISTS

We specialize in perfume odors for all purposes.

Write us regarding your problems— We can help you!

There is no substitute for experience.

AROMATIC PRODUCTS, INC.

15 E. 30TH ST. NEW YORK CITY -- *FACTORY* - STAMFORD, CONN.

"(1) Sodium thiosulphate had been considered as an antidote in the treatment of heavy metal poisoning, although in 1924 no references to its use in thallotoxicosis were found. Our original tests failed to show definite relief following its use. Oral administration had very little effect. Intravenous injections often increased the severity of thallium symptoms within twenty-four hours. The following year Buschke and Peiser (5, 7, 8) published their study on this question and reached the same conclusion.

"(2) The insolubility of the halides of thallium led to the study of the possibility of protecting animals by a course of treatment with the chloride of iodide of sodium or potassium. The potassium salts were useful but caused cardiac depression. Administration of sodium chloride was somewhat less effective than sodium iodide. The elimination of thallium was followed by flame tests on twenty-four-hour urine samples to determine the relative intensity of green color. Treatment with sodium iodide decreased, and treatment with sodium thiosulphate increased the thallium excretion in the urine.

"(3) One outstanding feature of thallium poisoning is the general endocrinological depression. Various endocrine stimulants were considered and finally pilocarpine was adopted because of its low toxicity in effective doses. Not only does pilocarpine serve as an endocrine stimulant, but also it stimulates perspiration. As thallium is eliminated in the sweat, this was believed to reduce the strain on the kidneys.

"(4) Thallium poisoning produces hype- or achlorhydria (13, 14, 15, 21). Therefore, hydrochloric acid was given by mouth to dogs with some success, as an adjunct to other methods of treatment.

"(5) Marked disturbances of calcium metabolism have been observed in thallotoxicosis. Our studies did not indicate any particular benefit following the administration of calcium salts alone, but in conjunction with iodide-thiosulphate treatment appeared to favor more rapid recovery.

"(6) Subsequent reports of studies on treatment suggested and denied the value of various glandular extracts, more particularly thymus, parathyroid and pituitary gland extracts (1, 2, 3, 6, 8, 9, 10, 11, 14, 15, 17, 21, 22, 23, 24). No laboratory studies were made with glandular extracts in the 1924 investigations. The incorporation of various glandular extracts in the treatment of thallium poisoning to dogs in later studies did not appear to be successful.

"Based on results obtained in the 1924 animal experiments, it was felt that thallium poisoning would be combated most successfully by: (a) intravenous administration of sodium iodide until thallium had practically disappeared from the twenty-four-hour urine; (b) sodium thiosulphate intravenously to induce gradual elimination of thallium; (c) pilocarpine and calcium salts intravenously; and (d) oral administration of hydrochloric acid. This regime based solely upon tests on animals may be inadequate, since there is always a question regarding the efficacy of an antidote for humans, unless it is firmly established by experiments upon humans. Recognized methods of treating strychnine or arsenic poisoning which were developed upon animals have shown somewhat disappointnig results when employed upon man, and vice versa. The need for extreme caution in advocating any specific course of treatment as 'a successful antidote' for any poison is appreciated. For this reason this regime was not included in the 1931 report (21) in which reference was made to the use of iodides or chlorides and to sodium thiosulphate intravenously."

———♦———

The 26th annual meeting of the American Drug Manufacturers Association will get under way at the Homestead, Hot Springs, Va., May 3. Sessions will continue through May 5, with the annual dinner being held that evening.

———♦———

Charles P. Gulick, president of National Oil Products Co., Harrison, N. J., has been made a director of the Harrison National Bank.

On English Fly Sprays

A protest against some of the statements made in an article on the market for fly sprays in England which was published in SOAP two months ago, has been received from W. F. Merritt, director of Stafford Allen & Sons, Ltd., London, well-known British manufacturers. The communication states:

"The article on 'Fly Sprays and other Insecticides on the English Market' by an 'English Manufacturer' writing under the nom de plume of Lawrence Allport and appearing in the March issue of SOAP has attracted our attention. As English manufacturers we must dissociate ourselves from some of the statements of Mr. Allport's letter. He condemns the excessive dilution of Pyrethrum Extract in cheap preparations—a very sound remark which we heartily endorse—but in the course of his paper Mr. Allport repeatedly refers to 'Pyrethrum Extract' as if the words mean a definite concentration, and infers that fly sprays made with an extract diluted 1 to 64 therefore cannot be potent. We should have thought that every manufacturer knew that commercial extracts, both here and in America, are made up to varying strengths. We ourselves make an extract for a dilution 1 to 200 and although 1 to 19 dilution is perhaps the most popular concentration in your country, stronger extracts are made, we believe, by practically all American Houses.

"There are a few other points in Mr. Allport's letter to which we might refer.

"The use of trichlorethylene in fly sprays, put forward as an example of progressive research, rather surprises us in view of the known toxicity of this chemical to man.

"On the question of standards, we agree that an official standard for fly sprays is very desirable. We should welcome the formation of an international standard for pyrethrum preparations, both as an aid to honest trading and in the interests of public health. So far as the chemical methods of analysis are concerned the matter still causes a great deal of discussion. We feel that in the case of

YOU'RE SURE OF *Quality*

WHEN YOU ORDER

PARADICHLOROBENZENE

from du Pont

When you order paradichlorobenzene from du Pont you may be sure that it will meet your specifications. It is always pure, white and uniform in quality. Available in four different granulations to suit your requirements. Ample stocks assure you of prompt delivery, even at short notice.

DU PONT

REG. U. S. PAT. OFF.

E. I. DU PONT DE NEMOURS & CO., INC., ORGANIC CHEMICALS DEPARTMENT, WILMINGTON, DEL.

flowers it should be possible to select a method to give concordant results in the hands of different workers, but as the position is at present, considerable variation in the pyrethrin content of samples can be obtained according to the method used. This also applies to chemical tests for Pyrethrum Extracts and in the case of extracts made with mineral oils we have not yet found a method that we consider entirely reliable. We would also welcome a standard process for the determination of the pyrethrins to eliminate the discordant results obtained.

"While the Association of British Insecticide Manufacturers may not have a definite standard for Pyrethrum Extracts, we think they are likely to resent the suggestion that there is not an association in this country 'to protect the trade and aid in discouraging at least to some extent the preparation of worthless insecicides.'"

Franklin Acquires Patent

Franklin Research Corp., Philadelphia, has just acquired the Bridgeman Shade Patent, U. S. No. 1,943,468, an important patent having to do with the wax emulsion business. This patent was originated by Walter A. Bridgeman, who is now in charge of the Wilbur White Industrial Division of Franklin Research Corp.

MacKelcan to Go Abroad

H. G. MacKelcan, vice-president in charge of sales of Innis, Speiden & Co., New York, and G. S. Hamilton, vice-president and comptroller, will sail from New York on the *S.S. Europa*, May 16, for a six weeks' trip. They will visit Germany, Czechoslovakia, Austria, France and the British Isles. While abroad they will visit a number of the foreign principals for whom their company acts as American sales agents.

Stocks of crude cottonseed oil on hand in United States as of March 31, 1937, totaled 100,950,202 lbs., as compared with 113,950,936 lbs. on the same date in 1936.

Automobile Polishes

EXAMPLES of a few of the many varieties of automobile body polishes are as follows: (1) One type is a simple wax mixture in turpentine or turpentine substitute as solvent. The waxes should be separately melted at as low a temperature as practicable, 220° F. being the maximum. Use indirect heating so as to avoid charring and discoloration. Mix thoroughly, let the temperature fall to 160-180° F., and stir in the solvent. The proportions given below can be varied a little according to the consistency desired, but should form a basis for this type of wax.

	Per Cent by Wt.
Paraffin wax m.p. 50-55° C. (122-131° F.)	12
Japan wax	6
Yellow beeswax	6
Gray carnauba wax	4
Turpentine or white spirit	72

(2) Another type is similar to No. 1 except that a fine abrasive such as china clay, tripoli or infusorial earth is incorporated. This may be stirred into the hot wax mixture prior to adding the solvents.

	Per Cent by Wt.
Bleached montan wax	8
Paraffin wax	8
Ceresin wax	2
Abrasive	35
Paraffin oil	26
Turpentine	21

(3) A greater proportion of carnauba wax is practicable if some rosin and soap are included in the mixture:

	Per Cent by Wt.
Gray carnauba wax	25
Japan wax	5
Colophony resin	5
Turpentine, white spirit or naphtha	60

After melting and mixing the solid ingredients, adding the solvent and filtering through gauze, 5 per cent of a 1 per cent solution of caustic potash should be stirred in and vigorously mixed. This saponifies a little of the wax and the soap so formed *in situ* prevents crumbling of the applied wax film.

(4) Bleached montan wax may be used as the hard wax constituent. The following is an emulsion type of polish:

	Per Cent by Wt.
Bleached montan wax	15
Olein	6
Carbonate of potash	2½
Glycerine	3½
Water	40
Turpentine or substitute	33

The waxes are incorporated in the solvent, and the carbonate of potash and glycerine in the water. The two hot solutions are mixed vigorously. Abrasive powder such as bentonite may be added.

(5) The following is typical of the best modern polishes but is more expensive than some others. It is a wax-emulsion type containing abrasive:

	Per Cent by Wt.
Gray carnauba wax	4
Yellow or white beeswax	2
Refined ceresin (yellow or white)	2
Coal tar naphtha or white spirit	35
Stearic acid	3
Triethanolamine	1
Water	35
Abrasive	18

The waxes are melted, mixed and incorporated with the naphtha. The stearic acid and triethanolamine are dissolved in the water. With both solutions at 80-100° C., the former is stirred into the latter vigorously. A variety of abrasives can be used and, according to their nature, the 18 per cent in the formula may have to be modified. Bentonite can be mixed into the final product up to 10 per cent, but tripoli is best stirred into the wax mixture, and increased to 35 per cent. Abrasive may be omitted entirely if preferred. *Industrial Chemist* **13**, 82 (1937).

A free complexion cloth is being offered with four cakes of its "Carbolated" brand of soap, packed in a cellophane wrapper, by Clover Farm Stores Corp., Cleveland, a national voluntary chain store system.

DO THIS now and skip this year's headache.

Send us one gallon of your insecticide, fly spray or other product *unperfumed.* Send it without perfume in it so that we can send back to you a number of samples of it perfumed in the way we think right. When we recommend in that way, we base our suggestion on *real knowledge and experience.* We've helped a lot of pretty good manufacturers sell more goods. Perhaps we can help you too. It doesn't cost much to try, so send along the unperfumed gallon.

van Ameringen-Haebler, Inc.

315 FOURTH AVENUE, NEW YORK

Chicago *Toronto* *Los Angeles* FACTORY, ELIZABETH, N. J.

Manufacturers and Importers of Aromatic Essentials

AROMATIC CHEMICALS—ESSENTIAL OILS—FLAVORS—PERFUME SPECIALTIES—

Soap and Scouring Powders

(*From Page 33*)

tripoli and volcanic ash. Amorphous silica is used to only a very limited extent in soap-containing scouring powders. To distinguish effectively between some of the abrasives offered, one needs to be a geologist, as well as a soapmaker, a factor that does not lend itself readily to proper standardization. The only plan that really works out in practice is to test out each likely material individually and keep it duly recorded for future reference. It should be noted that, for scouring powders of a gentler type, mild abrasives such as china clay, chalk, whiting and various diatomaceous earths may be used.

The processes involved in the manufacture of such scouring powders simply entail thorough mixing, followed by filling into cartons or bulk containers.

Washing tablets of the scouring type, suitable for use by motorists and mechanics (and also, to some extent, for domestic purposes) continue to experience a steady demand. They are by no means easy to manufacture satisfactorily, a fact that has confined their production to a few specialist houses that have made an intimate study of them. A typical washing tablet consists of a coconut-tallow-rosin soap, filled with a fair proportion of silicate and mixed hot with the necessary abrasives. The hot mass is subsequently left to cool in small frames, after which the still plastic and putty-like slab is passed just as it stands through a multiple stamping machine, which cuts it into several tablets. The latter are then air-conditioned in a drying stove until the necessary degree of hardness is attained, after which they are wrapped and packed. One of the chief problems is the prevention of crumbling during the stamping process. To circumvent this calls for a good deal of ingenuity on the part of the production man.

In conclusion, a word or two might well be said on the subject of silicosis and the U. K. Silicosis Regulations. This is an extremely interesting subject and one that, to British soapmakers at all events, is of outstanding importance.

Silicosis is a disease of the lungs, formerly thought to be caused by the inhalation of silicon dioxide (*vide* the proceedings of the International Conference on Silicosis, Johannesburg, 1930) — but now proved, mainly through the unremitting efforts of Dr. W. R. Jones, working in conjunction with the British Medical Association and other official bodies, to be due to the presence of the mineral sericite. Known also as secondary white mica, sericite is a hydrous silicate of aluminium and potassium, occurring in fibrous aggregates.

Apparently it is impossible to state that sericite is, or is not, present in any given siliceous or other abrasive material, unless such material is accorded expert examination under the petrological microscope. Thus we find that the gold-bearing quartz agglomerate ("banket"), which occurs in S. Africa, is responsible for an extremely high mortality figure due to silicosis, and that this material is notable for its very high content of sericite. On the other hand, the outwardly similar gold-bearing quartz found in the Kolar Goldfields, India, contains no sericite at all and has not given rise to a single case of silicosis.

Dr. Jones states that sericite is present in Cornish stone, where the feldspar crystals have in part been converted into hundreds of minute fabrics of sericite. Certain china clays, many of the marketed silicas, sillimanite, etc., are said to be sericite-containing, and Dr. Jones sums up the position by stating that "it is wiser to regard every kind of mineral dust as possibly guilty until proved innocent. . . . I regard all silicate minerals, as also minerals composed of free silica, as definitely harmful when they occur in sufficient number in the inhaled atmosphere as particles small enough in size (under about one-five-thousandth of an inch in diameter) to enter the lung alveoli."

The measures adopted by U. K. scouring powder manufacturers, as a protection against silicosis for their operatives and, indirectly, themselves, are briefly as follows. In the first place, it is possible to obtain, from reputable supply houses, special grades of white, guaranteed, non-silicotic silica. Alternatively, it should be simple enough to have samples of abrasives examined by a capable geologist. The Government Silicosis Regulations provide for the periodical medical inspection of employees, and it is obviously in any firm's best interests to co-operate as thoroughly as it can. One of the larger concerns, I believe, limits the period of employment of girl operatives in the scouring powder filling department to a maximum of one year, after which they are transferred for the rest of their service to other parts of the works, not connected with scouring powder in any shape or form. Where necessary, light masks are worn over the face, this being essential in the mixing room. Filling operations are also protected by suitable means, usually involving a dust-extracting plant. In one of the best arranged soapworks in the U. K., filling is carried out inside a neat protective hood, that in turn is connected with the intake of a highly efficient dust-collecting system. Thus one gets a picture of a line of operatives, each busily engaged at what appears to be a small open cupboard. A final suggestion is that all suppliers of silicas, feldspar, and other abrasives would do well to accord full co-operation in this vital respect, by undertaking an investigation into their various products with a view to combatting silicosis at the source.

♦

New Bentonite Plant

One of the most modern and up-to-date plants for the mining and refining of bentonite has recently been completed and placed in operation by Wyodak Chemical Co., Cleveland, Ohio. This new plant located at Upton, Wyoming, is designed for a capacity of 500 tons per day.

"We're Set for the Season—

. . . 'No Kerosene Breath' *sold us on* DEO-BASE *—and now it sells our entire line of household sprays to our customers."*

Reg. U. S. Pat. Off.

Freedom from kerosene odor is only one of many reasons why the Insecticide Industry has endorsed Deo-Base since 1931. Stability, balanced fractionation, sparkling clarity and assurance against staining are some others.

Get set for *your* season with DEO-BASE — the modern base for liquid insecticides. It enables you to give your customers what they want—and more.

L. SONNEBORN SONS, INC.

REFINERS OF WHITE OIL AND PETROLATUM

Refineries: Petrolia and Franklin, Pa. **Research Laboratories: Petrolia, Pa. and Nutley, N. J.**

Manufacturing Plants: Nutley, N. J.

NEW YORK
88 Lexington Ave.

LOS ANGELES
215 West 5th St.

CHICAGO
400 West Madison St

STOCKS CARRIED IN PRINCIPAL CITIES

TECHNICAL NOTES

Action of Pyrethrum

In contrast to the action of rotenone, which brings about a gradual paralysis of the insect, the action of pyrethrum is rapid. Pyrethrin preparations placed on the integument of insects removed from the spiracles or other body openings, caused death. The penetration of the integument was observed by adding a dye to the concentrate. It is believed that the poisons are then carried to the nerve ganglia in solution in the body fluid. Death was found to be due to the destruction of the cells of the central nervous system, accompanied by paralysis. Insects killed by administration of rotenone did not show the typical nerve lesions produced by pyrethrum. J. T. Martin. *J. Soc. Chem. Ind.* **56,** 91T (1937).

Insecticide Dust Mixer

A rotating drum which gives very efficient mixing of derris and cube powders with diluent dusts, is described. The apparatus used to rotate the drum is a modification of the one described by Quill. Theo. E. Brownson. U. S. Dept. Agr., Bur. Entomol., Plant Quarantine No. ET-93. 2 pp.

Colorless Pyrethrum Extract

Laboratory trials for the preparation of a colorless extract of pyrethrum flowers have been carried out at Rothamsted, England. It was found that on mixing decolorizing carbon with the finely powdered plant material, with subsequent Soxhlet extraction with petroleum ether, a colorless extract resulted containing a high percentage of pyrethrin I. The extracted material was dissolved in white petroleum oil and proved to be toxic to migrating larvae of *Plodia interpunctelta* when applied as a fine film containing 0.34 per cent of pyrethrin I, calculated from the volatile acid value. No mortality resulted from the white oil alone.

Tests in the cold indicated that, for petroleum ether, the minimum percentage of carbon in the pyrethrum-carbon mixture necessary to prevent extraction of the pigment, was of the order of 12.5 per cent. At this concentration of carbon, other solvents appeared to be less satisfactory. *Manufacturing Chemist* **8,** 87 (1937).

New Type Polishes

Polishes containing oils, fats or waxes, include as an ingredient an ester of a hydrogenated aromatic compound containing at least 2 hydroxy groups and at least 10 carbon atoms. For example a floor polish contains ozokerite, montan wax, mineral oil and the ester of hardened whale-oil fatty acids, with the hydrogenated product of the condensation of *o*-cresol with formaldehyde or with hydrogenated novolaks. A metal polish contains ozokerite, paraffin wax, turpentine and the ester of the higher-boiling fractions of hardened whale-oil fatty acids with the hydrogenated product of the condensation of cyclohexanone with cresol. Henkel & Cie. G.m.b.H. British Patent No. 453,911.

Bacteria Removal on Dishes

Dishes soiled experimentally and under standard restaurant conditions were washed with sodium metaphosphate solution to test its sanitary value in removing bacteria. The restaurant dishes were washed under the normal conditions of machine washing, using metaphosphate and other cleaners for comparison. A bacteriological study was made of the result. Washing with an alkaline detergent containing sodium metaphosphate showed superior sanitary quality of dishes washed. Such superiority is not attributed to any germicidal action but to the specific function of the salt in preventing the formation of films of insoluble alkaline earth salts and soaps. The hardness of the water used in one restaurant test varied from 59 to 67 p.p.m. calculated as calcium carbonate; that in the other from 26 to 46 p.p.m. George Ol Hall and Charles Schwartz. *Ind. Eng. Chem.* **29,** 421-4 (1937).

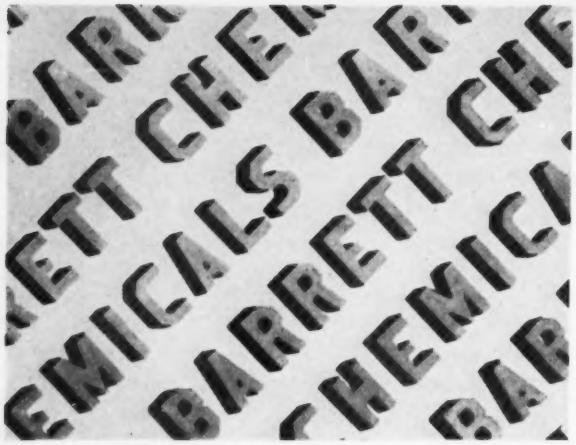
Toxicity of Derris

The acute oral toxicity of rotenone, deguelin, toxicarol, dehydrorotenone and dihydrorotenone to mammals was studied. The experimental animals used were dogs, rabbits, white rats and guinea pigs. No effects were noted when rotenone was fed to dogs in doses of 2 grams per kilogram of body weight. The lethal dose was found to be 3 grams for rabbits, 0.6 gram for white rats and 0.06 gram for guinea pigs. Of the other compounds studied, doses as high as 1.5 grams were not fatal to rabbits and rats.

Studies on the elimination of these compounds indicated that they are excreted in the feces unchanged. There seems to be little danger of acute poisoning from the ingestion of rotenone, deguelin or the other similar compounds. Anthony M. Ambrose and Harvey B. Haag. *Ind. Eng. Chem.* **29,** 429-31 (1937).

Tephrosin and Deguelin

*Iso*deguelin is identical with deguelin and *allo*tephrosin with tephrosin. The terms *iso*deguelin, *allo*tephrosin, *isoallo*tephrosin, *allo*tephrosindicarboxylic acid and its isomeride should be deleted from the literature. Merz's dihydrodeoxy*iso*deguelin is a new substance, which should be renamed dihydrodeoxydeguelin. Similarly, dihydro*isoallo*tephrosin is new and should be renamed dihydrotephrosin (of which



CRESOL U.S.P.

Cresol Compound prepared from Barrett Standard Cresol U.S.P. contains less than 5% Phenol and falls well within the limitations of the Federal Caustic Poisons Act.

TAR ACID OILS, 10%-75%

Carefully blended oils ranging in tar acid content from 10% to 75% for manufacture of disinfectants.

CRESYLIC ACIDS

Grades of various distillation ranges depending upon requirements.

PHENOL U.S.P.

A pure white crystalline product, 40° C. minimum melting point.

HYDROCARBON OIL

A neutral coal-tar oil for high coefficient disinfectants.

SOLVENT NAPHTHA

Approximately 25° C. boiling range.

DIP OIL

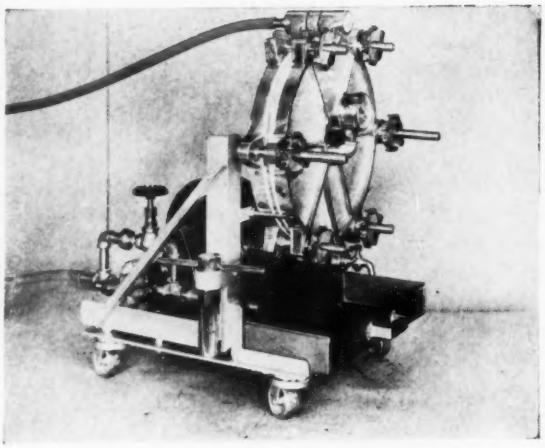
A coal-tar base for animal dips.

THE BARRETT COMPANY
40 Rector Street **New York, N. Y.**

Barrett CHEMICALS

Barrett Specification Roofs . . . Barrett Shingles and Roll Roofings . . . Protective Coal-tar Paints and Damp-proofing Materials . . . Tarvia and Tarvia-lithic, for road construction . . . Creosote Oil . . . Pipe Line Coatings . . . domestic Sulphate of Ammonia and Arcadian, the American Nitrate of Soda.

IMPROVED INSECTICIDES
for 1937!



ERTEL BENCH MODEL FILTER

● Why not make your 1937 insecticides the best yet? Make them sparkle by taking out the cloudiness with an Ertel Filter. Give them eye and buy appeal.

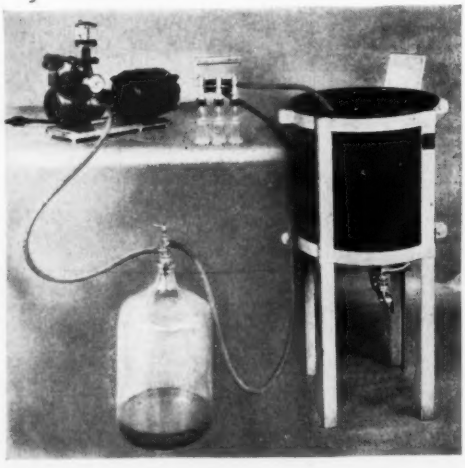
● Ertel Filters come in all sizes for any capacity, the bench model shown above being the smallest. They plug into any electric light socket and are low in cost to buy and to operate.

Send us a sample of your liquid and let us show what our filters can do.

ERTEL PORTABLE BOTTLE FILLER

● Note just a few of the advantages: No drip. Precise level filling. Speed. Quiet. Automatic overflow shut off. Self lubricating. Self cooling. Light in weight. Instantly plugged into any light socket.

One of the handiest pieces of equipment in the modern plant . . . and a downright time saver.



ERTEL ENGINEERING CORPORATION
DEPT. C. 120 EAST 16th STREET NEW YORK, N. Y.

dihydro*allo*tephrosin was an impure form).

This work brings clearly into the light two principles, which have hitherto been fully recognized only by American workers in this field, namely, the difficulty of purifying substances of this series to the highest possible melting point, and the necessity of using crystallographic data for identification of these substances. In addition it may be noted that melting points sometimes vary by several degrees for reasons which are not apparent and may not be connected with purity, so that different workers will obtain melting points for the same product which differ more widely than is the case in most other fields. J. J. Boam, R. S. Cahn and A. Stuart. *J. Soc. Chem. Ind.* **56**, 91-6T (1937).

—— ♦ ——

Hold First Golf Outing

The Allied Drug & Cosmetic Association, of Michigan, held the first golf tournament of its 1937 season at the Birmingham Golf Club, April 28. W. Elliott is chairman of the entertainment committee of the association, in charge of the tournaments. A feature of the season will be the joint tournament with the Chicago Drug & Chemical and Chicago Soap, Perfumery & Extract Associations in September, when the Chicago groups will be guests of the Detroit association.

—— ♦ ——

Macy May Sell Nationally

The "Mabrand" cosmetic and drug line of R. H. Macy & Co., New York, may shortly be marketed on a nation wide basis and backed by a program of national advertising, according to Meyer Katz, vice-president of Mabrand Products, Inc. Ralph I. Straus heads the Macy subsidiary which has recently been reorganized.

—— ♦ ——

Scalabrini Visits U. S.

Lino Scalabrini, representative in the Argentine and Uruguay for John Powell & Co., New York, arrived in New York late in April for a stay of a week en route to Europe. Mr. Scalabrini's home is in Switzerland, and he expects to spend a month there, then return to South America.

National Association of Insecticide *and* Disinfectant Manufacturers

OFFICERS

President.....**W. B. Eddy**
Rochester Germicide Co., Rochester, N. Y.
1st Vice-President.....**W. G. Griesemer**
Black Flag Co., Baltimore, Md.
2nd Vice-President.....**J. L. Brenn**
Huntington Laboratories, Inc., Huntington, Ind.
Treasurer.....**John Powell**
John Powell & Co., New York
Secretary.....**John H. Wright**

BOARD OF GOVERNORS

H. M. Clark	Dr. Hess & Clark, Inc., Ashland, O.
N. J. Gothard	Sinclair Refining Co., E. Chicago, Ind.
H. W. Hamilton	White Tar Co., Kearny, N. J.
C. P. McCormick	McCormick & Co., Baltimore
H. A. Nelson	Chemical Supply Co., Cleveland
S. S. Selig	The Selig Co., Atlanta
Wallace Thomas	Gulf Refining Co., Pittsburgh
Dr. Robert C. White	Robert C. White Co., Philadelphia
R. H. Young	Davies-Young Soap Co., Dayton, O.
W. J. Zick	Stanco, Incorporated, New York

MEMBERSHIP

Active Membership

All reputable persons, firms or corporations engaged in or allied with the business of manufacturing or distributing disinfectants, antiseptics, germicides, household insecticides, sanitary supplies, and/or articles coming within the purview of the Federal Insecticide Act of 1910 shall be eligible for Active Membership in the manner prescribed in the By-Laws.

Associate Membership

All reputable persons, firms or corporations engaged in the manufacture or distribution of raw materials, containers, packaging machinery, spraying devices or other articles, or services, normally purchased by Active Members of the Association shall be eligible for Associate Membership, to have and enjoy all the privileges of Active Membership but without the right to vote or hold office.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 E. 42nd STREET NEW YORK

LOWELL

SPRAYERS MAKE INSECTICIDES GO FARTHER!

The reason is a logical one — Lowell Sprayers exclusive design pushes insecticide out in a finely atomized mist. Full powered force to the very end of the stroke — that's the secret of Lowell's NU-ACTION!

This finely misted spray has waste eliminating features. No lost liquid through dripping or siphoning.

Save money on every plunger stroke — Spray resultfully with Lowell. Satisfactory spraying, plus insecticide saving!

LOWELL CAN GIVE IT AND TAKE IT TOO!

Every Lowell Sprayer comes to you with the background of proven results in actual use. Under every condition—under every strain—Lowell stands up and takes it!

BLIND SPOT SPRAYING ELIMINATED

The diagram shows poorly atomized spray, notice the wasted blind spots—and compare with solid atomized mist in NU-ACTION sprayers!

It's a new mist spreading **POWER HOUSE**

Send now for the Complete Lowell Catalog of Sprayers for every use.

LOWELL MANUFACTURING CO.
North Pier Terminal, Opp. Navy Pier, Chicago

NAME

ADDRESS

CITY

Reilly

COAL TAR PRODUCTS

for the **SOAP** *and* **DISINFECTANT** *Industry*

CRESOL
CRESYLIC ACID
CRESOL U.S.P.
TAR ACID OILS
XYLENOL
NAPHTHALENE

•

REILLY ROOFING and WATERPROOFING MATERIALS

15 PLANTS *to Serve You*

• When you need Roofing Felt, Roofing Pitch or Roofing Tar, Waterproofing Felt, Pitch or Paint, specify Reilly. Prices and particulars on request.

REILLY TAR & CHEMICAL CORPORATION

Executive Offices: Merchants Bank Building Indianapolis, Indiana

2513 S. DAMEN AVE., CHICAGO, ILL.
500 FIFTH AVE., NEW YORK, N. Y.
ST. LOUIS PARK, MINNEAPOLIS, MINN.

NEWS . . . . . .

Form Afco Chemical Co.

Announcement has just been made of the organization of Afco Chemical Co. (not inc.), Rock Island, Illinois. The company will engage in the manufacture and distribution of liquid soaps, insecticides, waxes, disinfectants and allied sanitary chemicals.

Dismiss F.T.C. Flori Complaint

The U. S. Federal Trade Commission has entered an order dismissing its complaint against Flori Mothproofing Method, Inc., Philadelphia, which had been charged with use of unfair methods of competition in connection with the sale of a liquid preparation designated "Flori," for use on garments, rugs, furniture and other articles as a protection against moths, carpet beetles and insects.

Revive "Walker's Devilment"

Walker Co., Thomasville, Ga., is now manufacturing "Walker's Devilment," one of the original liquid pyrethrum insecticides, a brand which has been off the market for some time. For some time this spray was put out by Southern Specialties Co. of Thomasville, operated by J. B. Jemison. The new concern is run by A. D. Walker who is no relation to B. K. Walker, the original manufacturer of the product.

H. V. Smith Co. Moves

A larger, more modern building at 1912 University avenue, St. Paul, is the present site for H. V. Smith & Co., soap and disinfectant manufacturers, who recently moved from 1910 University avenue.

Penick Leases Added Space

S. B. Penick & Co., insecticidal raw materials, have leased almost the entire third floor of the building at 132 Nassau St., New York. One portion of the space will be occupied by the various departments and general office staff, and one side will contain the executive offices.

Introduces "Pinesol"

Pine-O Co., St. Paul, Minn., has just put on the market a new product called "Pinesol." This product is recommended as being very effective for athlete's foot. The concern also manufactures bath salts, shampoo, water softener and bleaches.

Stuchberry Mfg. Moves

Stuchberry Mfg. Co., Chattanooga, Tenn., soaps, insecticides, etc., has recently occupied new quarters at 1219 Market St.

Adds Insecticide Line

Dayton Exterminating Co., Dayton, Ohio, has recently started to manufacture a line of insecticides apart from its exterminating business. They are sold under the name "Killall." Frank H. Marrill heads the company.

Adds Line of Waxes

Bowman Janitor Supply Co., Dayton, Ohio, has just added a new line of waxes and polishes.

Lehn & Fink Net Higher

Lehn & Fink Products Corp., New York, and domestic subsidiaries, report for the year ended December 31, 1936, a net profit of $685,086, equal to $1.71 a share which compares with 1935 earnings of $412,870, or $1.03 per share of stock.

Raticides Not Mailable

A notice on the mailing of raticides has just been released by Harlee Branch, 2nd assistant postmaster general, as follows: "Raticides containing poisonous ingredients are not and never have been mailable and anyone sending a poisonous raticide by mail is violating the law and subject to a severe penalty."—"The Postal Laws and Regulations were amended in 1934 to permit of the mailing of insecticides, fungicides and germicides under certain packing and labeling restrictions. This Amendment, however, did not include raticides."

Rex Offers "Flea-Tox"

Rex Research Corp., Toledo, Ohio, has just added a new item to its line—"Flea-Tox" for use on dogs, cats and other household pets.

Cheathem Chem. Co. Moves

Cheathem Chemical Co., Atlanta, has moved recently from 144 to 154 Walker St., where larger quarters have been taken. E. M. Clark heads the concern, which handles insecticides, creams, lotions, cosmetics, etc.

Brooks Leaves Orkin

E. Burns Brooks, general manager of Orkin Exterminating Co., Atlanta, has just resigned to become associated with Dunlap & Co., insurance brokers. He has been succeeded by Owen Kelly, who has been with Orkin for the past fourteen years. The concern has just moved into new and more spacious quarters at 315 Peachtree St. A large neon sign has been installed featuring "Pest Control," and including animated figures of a large rat and a roach.

Skol Appoints Ad Agent

Skol Products, New York, maker of "Skol" antiseptics, has appointed Peck Advertising Agency, New York, to take care of their advertising account. "Skol" products will be advertised by radio, magazines, and newspapers.

Features Termite Control

Huemite, Inc., Dayton, Ohio, is marketing a method of termite eradication in Dayton which is described by the company's manager, George Sewell, as a non-competitive earth treatment. The company has launched an aggressive campaign and put on new salesmen for the ten months season which has started.

A PLEASANT DEATH FOR THE FLY!

and a pleasant reaction from the customer

WHEN YOU USE

CEFCO UTILITY-S-ENCES

— IN YOUR KEROSENE SPRAYS —

ALDION, K	4.00	GARDENIA, K	2.75	LILAC, K	3.00	NEW MOWN HAY, K	3.50
CARNATION, K	2.75	JASMIN, K	2.75	LILY, K	3.00	ORIENTAL, K	3.50
FOUGERE, K	2.50	LAVENDER K	2.75	NARCISSE, K	2.75	PINE BALSAM, K	3.25

Many others in stock—special tynes created

CHARLES FISCHBECK CO·INC·

119 WEST 19th STREET
"Backed by a Quarter of a Century of Experience"

NEW YORK

SWEEPING COMPOUNDS

for Jobbing Trade Only!

IT'S RED

"KLEENSWEEP"

THE PATENTED SWEEPING COMPOUND WITH THE SISAL BASE

•

IT'S GREEN

THE SWEEPING COMPOUND WITH THE SAWDUST BASE

•

"SANISWEEP"

Our preparations will help you increase your sales on SWEEPING COMPOUND.

SWEEPING COMPOUND M'N'F'R'S CO. OF N. Y. INC.

421 BROOME STREET, NEW YORK

Insecticide-Disinfectant Meeting, To Be Held in Chicago, June 7-8

THE National Association of Insecticide & Disinfectant Manufacturers will hold its 23rd mid-year meeting on June 7 and 8 at the Edgewater Beach Hotel, Chicago, according to an announcement issued by Secretary John Wright following a meeting of the Board of Governors of the Association in New York on April 9. The meeting of Governors which was held at the Hotel Commodore, New York, and was presided over by President W. B. Eddy of the Rochester Germicide Co., Rochester, N. Y., also spent some time in discussing other important matters, including a proposed specification for an insecticide for crawling insects, and the possibility of establishing a fellowship to study this problem at some American university, preferably at Ohio State University under the direction of Dr. F. L. Campbell.

Conferences between the U. S Public Health Service in Washington and Melvin Fuld of Fuld Brothers, Baltimore, chairman of the General Disinfectant Committee, in regard to the wider use of disinfectants during floods and other calamities, were discussed at considerable length. Legislation restricting the sale of insecticides and disinfectants to drug stores in the states of Ohio, New York, and New Jersey, also came in for discussion. Secretary Wright has filed briefs with the state boards of pharmacy in these states against these sales restrictions and is following the matter through. Committee chairman also reported to the board at the meeting.

To fill the place on the Board of Governors left vacant by the death of First Vice-President W. G. Griesemer of the Black Flag Company recently, Clarence Weirich of the C. B. Dolge Co., Westport, Conn., was elected by the Board. The vice-presidency, however, will remain vacant until the next annual meeting in December. Among those who were present at the meeting were: President W. B. Eddy, Vice-President J. L. Brenn of the Huntington Laboratories, Huntington, Ind.; John Wright, secretary; John Powell, of John Powell & Co., treasurer; Henry Nelson, of the Chemical Supply Co., Cleveland; N. J. Gothard, of Sinclair Refining Co., East Chicago, Ind.; H. W. Hamilton, of the White Tar Co., Kearny, N. J.; Clarence Weirich, of the C. B. Dolge Co., Westport, Conn. Also present were the following committee chairmen: Dr. Emil Klarman, of Lehn & Fink, Inc.; Dr. Alfred Weed, of John Powell & Co.; B. G. Philbrick, of Skinner & Sherman, Boston.

John Wright, secretary, is chairman of the Convention Committee for Chicago. H. W. Hamilton is in charge of program arrangements.

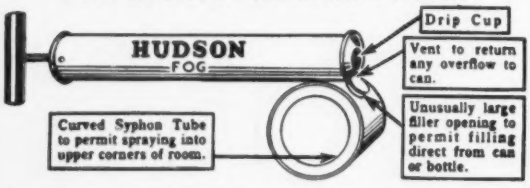
Night view of Edgewater Beach Hotel, Chicago, where the 23rd Mid-Year Insecticide-Disinfectant Meeting will be held on June 7 and 8.

HUDSON

"HERE AM I WITHOUT A SPRAYER —And Fly-time Comin' On!"

At heart, Mrs. America doesn't go in for torch-singing. But it's enough to give anyone the blues when the fly season starts and efforts seem so futile with popgun sprayers. We make "little" sprayers —sure—but we'd feel better about giving you one that does more for your product. So would Mrs. America! What with meals and house cleaning and minding the baby, she has enough to do. Here is a sprayer that doubles the effectiveness of your insecticide—breaks it into a fine, death-dealing mist—throws it farther—really kills insects the first time. She'll show her gratitude with repeat orders. And she'll tell her friends.

HUDSON FOG SPRAYER FOR GREATER KILLING POWER


HUDSON
FOG
Drip Cup
Vent to return any overflow to can.
Curved Syphon Tube to permit spraying into upper corners of room.
Unusually large filler opening to permit filling direct from can or bottle.

It costs only a trifle more, but what a difference in results! It has the power to send death clouds clear up to the ceiling . . . kill every insect in the room. And these other features make it the perfect sprayer for household use.

It's not too late! Get in touch with the Hudson Merchandising Department for full information.

H. D. HUDSON MFG. CO.
589 EAST ILLINOIS STREET CHICAGO, ILLINOIS

FREE FROM ALL ODORS

except the pleasant scent of the pyrethrum flower

DI-BUG

PYRETHRUM EXTRACTS*

★ Now made exclusively with Spraysene, the scientific insecticide base that is guaranteed free from kerosene odor and chemical solvent smells. Di-Bug "Odorless" Pyrethrum Extracts cost no more than ordinary pyrethrum extracts made with common kerosene insecticide bases.

All Di-Bug Extracts have guaranteed minimum pyrethrin contents as follows:

DI-BUG PYRETHRUM EXTRACT

No. 30 (mix 1:30)—3.6% Pyrethrins
No. 20 (mix 1:20)—2.4% Pyrethrins
No. 5 (mix 1:4)—0.6% Pyrethrins

DI-BUG PYRETHRUM POWDER

Finest Japanese impalpable quality

Are your brand insecticides "odorless"? Is the killing power of your brand insecticides dependable? Manufacturers who use DI-BUG Pyrethrum Products always answer "yes".

Write today for literature.

SHERWOOD

PETROLEUM COMPANY, INC.

Main Office: BUSH TERMINAL, BROOKLYN, N. Y.

Refinery: Warren, Pa. Stocks carried in principal cities

N. Y. Exterminators Hear Talks

The monthly dinner-meeting of the Professional Exterminators Assn. with Milford H. Oachs of Ozane Co., New York, presiding, was held at The Town Hall, New York, Thursday evening, April 15th. The meeting was addressed by Dr. James C. Munch, Senior Pharmacologist Bureau of Biological Survey U.S.D.A., and Dr. Neely Turner, Asst. State Entomologist for the State of Connecticut.

Dr. Munch spoke on "Thallium" with particular reference to its use in rodent poisons. Dr. Neely Turner spoke of his work at the Connecticut Experimental Station, and throughout the state, in the control of termites, and the widespread extent of their damage in this part of the country. He recommends that on all new construction the foundations should be capped with a termite-proof metal shield, preferably of copper. In the case of old houses, and buildings already completed, which would not warrant the expense of shielding, he recommends ground treatment for destroying the termites, as the best procedure.

Phila. Exterminators Meet

Several meetings have been held recently in Philadelphia by firms in the exterminating business in an attempt to take group action to eliminate certain abuses. As yet no permanent local association has been formed, although this may follow later. For the moment a credit clearing house has been set up under the supervision of Alfred Schmitthenner, Rose Exterminator Co., Martin Meyer, Theodore Meyer Estate, has been serving as chairman of the recent informal group meetings.

Omaha Exterminators Organize

A permanent local association of Omaha, Nebraska, exterminators has just been formed, with John P. Linn of Industrial Fumigation Co. as chairman, and Marvin Walenz of Acme Sanitary Co. as secretary. Regular meetings are being planned at two week intervals and the group will affiliate with the national association. Among immediate activities to which the group will give its attention is the standardization of classified directory listings. An attempt will be made to have all names grouped under a heading of "Pest Control Operators," with other listings merely referring readers to the major list. The group will also work with Rodman M. Brown, engineer of the city building department, on pending legislation.

Buffalo Pest Control Assn.

The Buffalo Pest Control Association met for luncheon on Wednesday, April 7th at Laube's Cafeteria, Buffalo, N. Y. Discussion centered around the listings in the classified telephone directories and by unanimous decision of those attending efforts are to be continued to have only one major listing; namely, "Pest Control," with cross listings under the other references.

Feature Confidential Service

City Exterminating Co., Dayton, Ohio, is currently featuring in its advertising the fact that company service trucks carry no signs, thus enabling clients to use an exterminating service without advertising this fact to their neighbors.

Simmonds Back from Cruise

George L. Simmonds, president of U. S. Sanitary Specialties Corp., Chicago, returned early last month from an extended Mediterranean cruise. In addition to visiting all the countries bordering on the Mediterranean, Mr. Simmonds made a special trip into Northern Italy and Austria.

Vote Funds for Insect Control

A joint resolution has passed the U. S. House of Representatives appropriating $1,000,000 to control the outbreak of plant diseases and insect pests. Representative Clifton Woodrum of Virginia, stated that the Dept. of Agriculture received an appropriation of $250,000 last year, too late to establish any effective control. He pointed out that for 1937 the appropriation committee is giving the department four times as much as last year and this at an earlier date.

Guest of E. M. Geary

David Lynch, sales representative of John Powell & Co., New York, was the guest of E. M. Geary, Marvel Products Co., Jacksonville, Fla., and Carl Hoffman on the latter's cruiser *Elizabeth IV* on Mr. Lynch's recent Florida trip. They took a week-end cruise up the St. John River.

New Sprayer Folder

Lowell Metal Products Co., Lowell, Michigan, has recently issued a new color folder illustrating and describing their complete line of sprayers and dusters for insecticides and moth proofing compounds. Copies of the folder may be obtained by writing the manufacturer or the publishers of *Soap*.

Lambert Net Lower

Lambert Pharmacal Co., St. Louis, reports for the year ended December 31, 1936, consolidated net profit, after taxes of $1,372,387, equivalent to $1.70 a share on 746,371 shares of capital stock outstanding. This compares with 1935 figures of $1,516,740, equal to $2.03 a share.

Wants Agency for Polish

A concern in Buenos Aires, Argentina, is interested in securing an agency for sale of furniture polish of American manufacture. Interested parties may address the U. S. Bureau of Foreign & Domestic Commerce, Washington, D. C., for further particulars, mentioning inquiry number 2778.

M.M.&R. Name Canadian Agent

Magnus, Mabee & Reynard, Inc., New York essential oil house, announces the appointment of Richardson Agencies, Limited, as sole representatives for sale of M. M. & R. essential oils, flavors and perfuming materials in the Dominion of Canada. Offices of Richardson Agencies, Limited, are at 454 King Street, Toronto, Canada.

Knowing the need for a high grade deodorized base oil, reasonably priced, we offer

NONODR

The completely deodorized base for liquid insecticides.

MADE RIGHT PRICED RIGHT

O'CONNOR & KREMP

11 West 42nd Street New York, N. Y.

Sole Agents

BRADFORD PENN REFINING CORP.

Clarendon, Penna.

MEMBER

INSECTICIDE DISINFECTANT MANUFACTURERS

DISINFECTANTS~
INSECTICIDES~
CLEANING COMPOUNDS~
PERFUMED SPRAYS~

ETC.

REQUEST
A COPY OF
OUR NEW
PRICE LIST
AND
CATALOG
• NEW PRICES
• NEW PRODUCTS
•

THE CHEMICAL SUPPLY CO.

2450 CANAL ROAD

CLEVELAND, OHIO

Argentine Insecticide Market

The 1935 production of household insecticides in Argentina is reported at approximately 1,000,000 liters. There are over 20 brands packed locally, the major part of the trade being in the hands of the large petroleum companies. The 1935 imports covering all types of insecticides amounted to 375,000 kilograms, of which one-half comprised the concentrates used by the local industry, most of the remainder being powdered insecticides. Incidentally, local attempts at pyrethrum cultivation are still in a preliminary and experimental stage. Most all of the demand for disinfectants is supplied by local industry, the 1935 production exceeding 2,000,000 liters.

Fritzsche Executives Back

W. A. R. Welcke, vice-president and treasurer of Fritzsche Bros., Inc., New York, has just returned from a short vacation cruise to the West Indies. John H. Montgomery, assistant secretary, is also back in New York after a brief absence occasioned by the death of his mother in Buffalo. Dr. Ernest Guenther, research chief, has returned from California after an absence of four weeks. While away he gave a series of illustrated lectures at various universities. He will leave May 8 for his annual trip to the Fritzsche plant at Seillans in southern France.

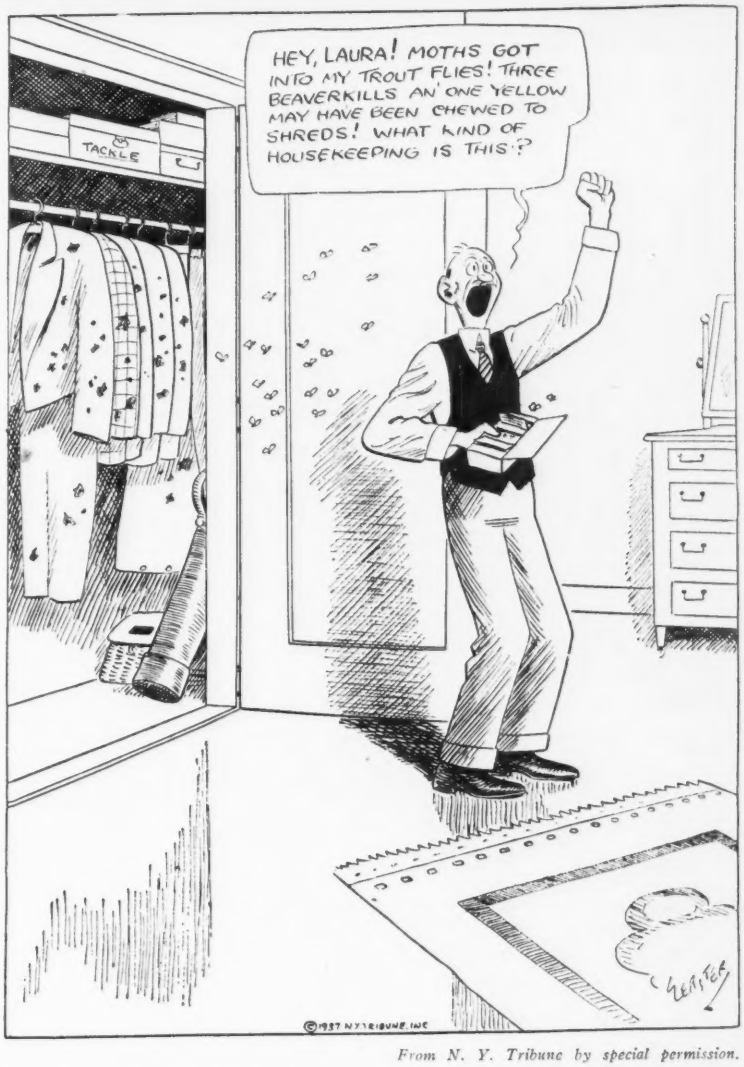
Ertel Returns From Trip

Fred Ertel, Ertel Engineering Corp., New York, has recently returned from a trip to England. While in London he visited Farrow & Jackson, Ltd., English representatives of his concern. The Farrow & Jackson business dates back to 1798 when it was founded by Benjamin Farrow.

H. H. Rosenthal in Europe

H. H. Rosenthal, president of H. H. Rosenthal Co., New York, chemicals, oils, drugs and allied products, sailed for Europe April 7th on the "*Washington*" accompanied by Mrs. Rosenthal. He planned to be away for about two months, visiting England, France, Belgium and Holland. Mr. Rosenthal was greeted by about thirty-five of his friends at a surprise luncheon at the Prince George Hotel on April 3rd, prior to sailing.

Life's Darkest Moment : : : BY WEBSTER


HEY, LAURA! MOTHS GOT INTO MY TROUT FLIES! THREE BEAVERKILLS AN' ONE YELLOW MAY HAVE BEEN CHEWED TO SHREDS! WHAT KIND OF HOUSEKEEPING IS THIS?
TACKLE
WEBSTER
©1937 N.Y. TRIBUNE INC.

From N. Y. Tribune by special permission.

Natl. Oil & Supply Expands

National Oil & Supply Co., Newark, N. J., has leased additional space in the building at Frelinghuysen Avenue and Bigelow Street, Newark.

New Quarters for Loeb

Loeb Equipment Supply Co., Chicago used equipment dealer, moved into larger quarters at 914-916 North Marshfield Avenue on May 1st. At the new address the complete stock of equipment can be housed under one roof instead of having to store it in several different warehouses as was necessary prior to the occupation of new quarters.

Keller Now Schimmel Director

Dr. K. T. Keller has recently been named to the board of directors of Schimmel & Co., Miltitz-Leipzig, Germany. Dr. Keller, who is production manager of the company, visited United States about a year ago, making his headquarters with Schimmel & Co., New York, American branch of the company, of which his brother, Gert Keller, is general manager.

Atlantic Ultrasene

—A BETTER BASE FOR BETTER INSECTICIDES

HANGING'S too good for Mr. House Fly! He deserves a quicker, more economical death. Foes of sanitation and cleanliness for centuries, he and his family are worthy of nothing less than wholesale massacre.

There is no better way to wipe out insects than with Atlantic Ultrasene-base insecticides. Ultrasene is refined only for use as a carrier for insect killers. Unlike a kerosene base, Ultrasene evaporates readily, leaves no disagreeable odor, no oily residue. No wonder men whose creed is sanitation and cleanliness—proprietors of markets, restaurants, hotels—insist upon Ultrasene-base insecticides. No wonder successful insecticide manufacturers choose Ultrasene for their spray-base.

Find out more about Atlantic Ultrasene. Our technical department will help you with further information and liberal experimental samples. The Atlantic Refining Company, Specialty Sales Department, 260 South Broad Street, Philadelphia, Pennsylvania.

ATLANTIC ULTRASENE

TERRAZZO FLOORS MUST BE SEALED

TO PREVENT STAINING.

WASHBURN'S

Crystal Seal.

As a sealing coat

AND

Non Slip Terrazzo Finish

As a finishing coat.

IS THE ANSWER.

This new book, MODERN FLOOR MAINTENANCE, explains how to treat TERRAZZO and all types of flooring. A copy may may be obtained FREE by merely writing:

T. F. WASHBURN COMPANY

Floor Maintenance Division

2244 Elston Ave., Chicago, Ill.

Answers Misbranding Rumor

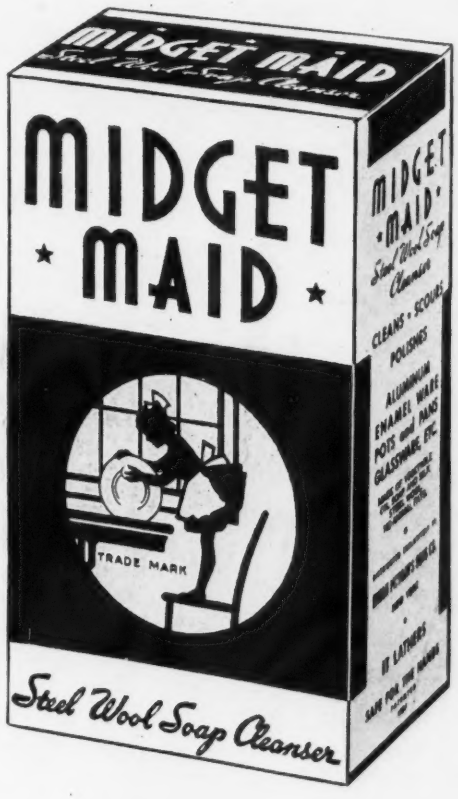
Cole Chemical Corp., Long Island City, N. Y., in a letter to SOAP, signed by F. Dexter, strongly denies being fined by the Federal Government for misbranding disinfectant, and states that the rumor to this effect was originated and spread by a competitor. The Cole Company stated in part: "We have learned during the past few weeks that a company named M. Schneider & Sons, Inc. of Brooklyn has been making degrading and unwarranted statements about our organization and our products. These statements, which are absolutely untrue and can be checked with the Government, are to the effect that we were fined $5,000 for misbranding and adulterating our disinfectant. We desire to make it clearly understood that this report is without truth, and that the statements are slander which have done us considerable damage."

Murphy with Rosenthal

Walter J. Murphy, managing editor of *Chemical Industries* for the past seven years, and technical editor of the *Chemical Guide Book* since 1933, resigned these positions April 5 to join the organization of H. H. Rosenthal Co., New York, drug, chemical and oil firm. Mr. Murphy had been identified with the chemical industry prior to his entrance into the chemical publishing field. He was associated at various times with Mutual Chemical Co., W. F. George Chemicals, Inc., Naugatuck Chemical Co., and American Cyanamid Co.

Argentine Soap Industry

Argentina depends but little on imported soaps. Imports of all types of soaps during 1935 amounted to only 300,000 kilos. The latest survey of the Argentine soap industry was made for the year 1931, by the Argentine Bureau of Commerce and Industry. At that time there were reported to be 25 establishments devoted to the manufacture of soap and candles in the vicinity of Buenos Aires. During 1931 these 25 establishments accounted for total sales of approximately 18 million pesos, and produced the following soap items: 39,007,372 kilos of bar soap, 943,906 cakes of soap, 135,930 liters of liquid soap, and 8,520,745 kilos of other soap products. The industry has grown considerably since 1931, it is reported. The Argentine Government is now compiling data from an industrial census, which will doubtless indicate a much broader soap market. These data will not be available, however, for some time.



A new product from a famous old house,—Midget Maid, recently put on the market by Enoch Morgan's Sons Co., New York, manufacturers of SAPOLIO, whose history dates back to 1809. The new Midget Maid is a steel wool soap scouring product for pots, pans, and general cleaning and scouring.

Associated Exterminators Meet

The regular monthly meeting of the Associated Exterminators and Fumigators of New York was held Thursday, April 15, at the General Motors Building. The meeting was given over entirely to a discussion of fair trade practices and methods to cope with unethical sales practices. William O. Buettner, president, presided. As guest speaker, Prof. Nathan Probst of the law firm of Baker and Obermeier addressed the meeting and led the discussion relative to trade practices. Emphasis was placed upon the advisability of having no advertising material carry price lists or price schedules in that this had the effect of lowering prices constantly. The Association is to hold its first open meeting for the entire industry in May at which there will be speakers and discussion.

Leon Chiris in U. S.

Leon A. Chiris, head of Etablissements Antoine Chiris, Grasse, France, arrived in New York recently for a month's visit at the American headquarters of his company at 153 Waverly Place, New York. Mr. Chiris planned to discuss an expanded program of activities with Louis Rapin, president of Antoine Chiris Co., and Jean Gondran, general manager. Mr. Gondran was until recently manager of the Chiris factory at Grasse, France.

A CORDIAL welcome is extended all members and delegates attending the Annual Convention National Association of Insecticide and Disinfectant Manufacturers, Inc., June 7 and 8, 1937.

●

EDGEWATER BEACH HOTEL

On Lake Michigan

5300 BLOCK—SHERIDAN ROAD CHICAGO

W. M. DEWEY,
Managing Director

Explain Labeling Regulations Under California Insecticide Act

A bulletin recently issued by Dr. Alvin J. Cox, chief of the California State Division of Chemistry, amplifies the rulings of the California State Department of Agriculture on the labeling of fly sprays and insect dusts. The full text of the bulletin is as follows:

"The law in California relating to economic poisons requires a statement of ingredients on the application and on the label. These statements need not necessarily be given in the same manner. That required on the application is specific. The one on the label may be identical with that in the application, although there is an optional statement provided. **With the application**, Sec. 1071 of the Agricultural Code provides that 'each applicant for a license shall also file a statement of the brands, trademarks, and kinds of economic poisons intended to be manufactured or sold, the correct name and percentage of each active ingredient, and the total percentage of inert ingredients contained therein.' This includes the name and percentage of each intensifier or intensifying agent ('toxic') of a fly spray such a pyrethrins, rotenone, other ether extractives of rotenone bearing roots or plants, organic thiocyanate, chlorinated organic compounds, or other intensifier, and the other active ingredients such as petroleum oil.

"The following explanation merely supplements regular lawful labeling requirements:

"Manufacturers of household insecticides have been encouraged to state the percentage content of pyrethrins or of any other intensifying ingredient on the label, and the continuance of this practice is acceptable. An objection to this has been raised where the manufacturer desires the label to state the name and percentage of each inert ingredient or active ingredients 100 per cent, on the theory that California products would be placed in unfair competition with those of manufacturers in a state where there was no supervision of economic poisons, and a manufacturer of a competitive material in such a state could without interference claim a higher intensifier content even though he might have a less amount. From the standpoint of law enforcement it is equally satisfactory for a manufacturer to file with the Division each and every active ingredient, which includes any intensifier, as it is to carry a statement of this on his label. If the statement of active ingredients indicates that the product will be useful for the purpose intended, registration will be granted without a demonstration of efficiency. By having the application statement, the Division can expedite the issuance of a certificate of registration for a material of value, and can as readily prevent the sale in California of a material of little value. A guarantee in an application is as valid and binding as one on a label.

"A manufacturer of organic dusts for the control of household insects or of sprays containing petroleum oil and an organic intensifier for the control of various kinds of flies and other household insects, and of garden insects including leaf hoppers (the labels of which state the names and percentage of each inert ingredient which are not effective as economic poisons, or claim the contents to contain active ingredients 100%) may, in lieu of stating the guaranteed percentage of the intensifier on the label, file with his application for registration the minimum guaranteed percentage of the intensifier together with other active ingredients and the total inert ingredients. If, however, in the brand name on the label, or otherwise, a material is represented to contain a particular intensifier it must contain an amount sufficient to justify the claim.

"'Pyrethrum (or insect) powder containing .....% pyrethrins', 'derris powder containing .....% rotenone and .....% of other ether extractives (resins) of .....' (naming the particular root) are acceptable statements of active ingredients of a dust. (If a dust is manufactured in California for sale only in this state, in lieu of naming the particular root it is satisfactory to state 'of rotenone bearing roots'.) On every economic poison label of products intended for use on, or sold for application to any food crop in such a way as to leave a residue, the percentage of any lead, fluorine, or arsenic trioxide must be given, and to the second decimal place if less than 1%.

"In lieu of accompanying the application with the statement of the correct name and percentage of each active ingredient and the total percentage of inert ingredients contained therein, which has just been outlined, the applicant is permitted under the law to deliver to the Division express prepaid a representative sample of not less than one pound of each economic poison desired to be registered. From a fly spray or insect dust manufacturer's standpoint this is far from satisfactory, for his guaranteed statement of active ingredients would become the amount found present in the sample upon analysis. Many wholesalers claim to deliver concentrated extracts several points above their guaranteed amount. If the product were diluted in accordance with the recommendation, and a sample submitted in lieu of the application statement, the registrant would be guaranteeing the additional quantity included for deterioration and probably frequently find his material deficient. It is especially recommended that in the first place the registrant furnish with his application a statement as to what he desires to guarantee in his material. Furthermore, when a sample only is deposited, registration would be delayed until such time as the Division could find an opportunity to analyze it or require a practical demonstration as provided in Agricultural Code Sec. 1072, as there would be no other manner to establish facts as to its efficacy.

"Labels of household insecticides containing petroleum oil should carry the statement, 'Do not spray near open flame'. Inasmuch as a housewife may be tempted to use the material for the control of pests on her house plants, the statement, 'Do not spray on foliage' also is recommended. The word 'controls' is preferable to the word 'kills' or 'destroys'. Be specific as to the pests to be controlled. The term 'and many other insects' is too broad, but 'and certain other insects' or 'and other similar insects' is acceptable. Typed or printer's proof should be submitted before printing new labels to allow for constructive criticism.

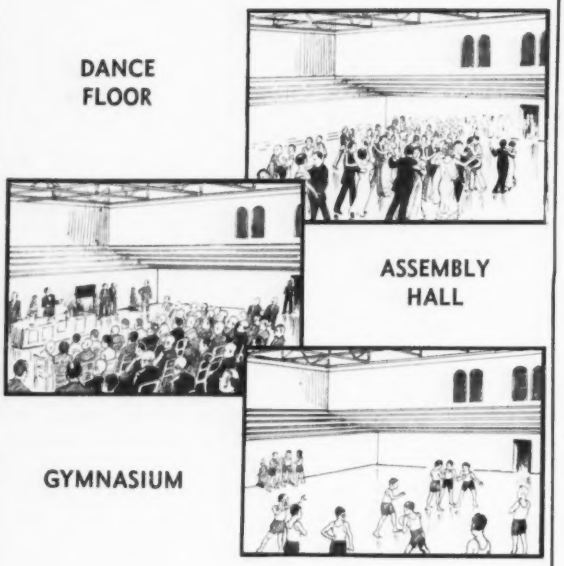
"The application for registration of a garden insecticide must state the class and the percentage of unsulphonated residue of any oil therein.

"A material would not be licensed if it were believed to be dangerous to the public health when used as directed. This Division takes

CHAIN STORE SEALER

(The Penetrating Seal)

SOLVES this 3-Combination Floor Problem



1. Penetrates Deeply.
2. No Surface Film.
3. No Rubber Burns.
4. Use with or without Finishing Coat of Wax.
5. Easily Applied.
6. Two Coats in One Day.

Write us for full details about CHAIN STORE SEALER

Let us help you solve your floor problems—no obligation

FEDERAL VARNISH CO.

FLOOR FINISH DIVISION

DEPT. 48—331-337 S. PEORIA ST.

CHICAGO - - - - - - ILLINOIS

BREUER'S TORNADO ELECTRIC SPRAYERS

get you reorders because they are the most efficient and durable insecticide sprayers ever built. Supply your customers with the best.

The New Tornado Model 36

Automatic Time Switch—Volume Air Control

One Gallon Capacity, 1-3 H.P. G. E. Universal Motor

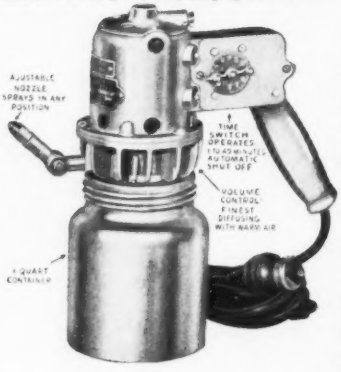
1/3 H.P. G.E. MOTOR
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
COMPRESSOR TYPE
1 GALLON CONTAINER

Here is the finest sprayer ever built. Similar to the now widely used Tornado Model 54 and retaining the automatic time switch, volume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas formation.

The patented principle of heating and compressing material does the trick. Just the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

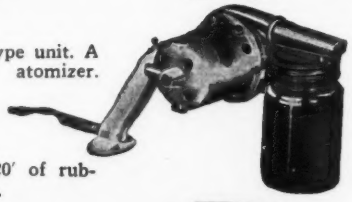
Get the facts on this sprayer before buying!

Also most complete line of electric sprayers to meet every spraying problem.

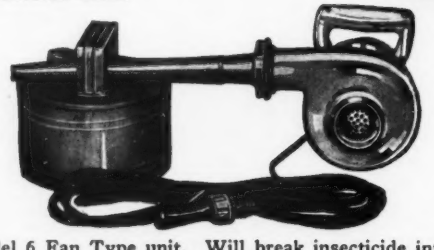

ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTE AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

MODEL 54—1 QT. CAPACITY

It features an automatic time switch set at any point from 1 to 30 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except does not have automatic time switch.



Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street **Chicago, Ill.**

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U. S. A. and Foreign Countries

exception not only to unqualified statements such as 'safe', 'non-dangerous' and 'harmless' on economic poison labels, but also to the expression, 'non-poisonous to man or other animals when used as directed'. The poisonousness of a material is a fixed characteristic and is neither diminished nor increased 'when used as directed'. The use of the word 'poisonous', 'toxic', or 'harmful', is not acceptable as these characteristics of products do not change with the manner of use. The expression, 'non-injurious to man or other animals when used as directed' may be carried on a fly spray when the expression is true. 'Non-' is merely a negative prefix in common use. 'Non-injurious' simply means the opposite of injurious. The more positive words which may emphasize the opposite quality will not be honored. This Division will not take exception to the expression 'non-injurious to man or other animals when used as directed' during the present fiscal year and hereby announces that it will continue to permit the particular expression if manufacturers desire to use it. However, it would seem to the manufacturer's advantage to omit it entirely for therein he admits that it is or may be injurious under certain conditions. What has been said with regard to labels also applies to cartons and other representations whether in oral or written statements or advertising literature."

Talks on Marketing Trends

Frank W. Lovejoy, of Socony-Vacuum Oil Co., was the guest speaker at a luncheon meeting of the New York Board of Trade, held in the Hotel Pennsylvania, April 14. His topic was "Marketing Trends." The speaker was introduced by Percy C. Magnus, Magnus, Mabee & Reynard, Inc., New York, president of the Board of Trade.

Chicago Drug Club Elects

Dr. Frank B. Kirby, of Abbott Laboratories, was elected president of the Chicago Drug & Chemical Club at its recent annual meeting. Other officers elected were: Robert C. Holland, of Harry Holland & Sons, vice-president; M. F. Charley, of Standard Pharmacal Co., treasurer, and J. J. Kassenbrock, of Norwich Pharmacal Co., secretary. The annual May party and ladies' night will be held at the Lake Shore Athletic Club on May 6.

Milwaukee Bleach Sales

A survey recently conducted in the Milwaukee market by the *Milwaukee Journal* shows that of the 188,000 families in that district, a total of 101,000 use bottled bleaching fluid, the average monthly consumption per family being 1.5 bottles. This is an increase over 1936, when users numbered only 88,000 families, with an average monthly consumption of only 1.4 bottles.

With this increase in users and average consumption, it is also noted that total number of brands purchased by Greater Milwaukee families this year has jumped to 45 brands. In 1936 a total of 32 brands was reported by families buying this type product.

The leading seller in the Milwaukee market is Hilex which was found to be purchased this year by 44.5 per cent of all families using this type of product. This is a relative decline in popularity, for last year's mark was 50.5 per cent. Novel Wash holds second place, with a figure of 15.5 per cent this year, as compared with 16.3 per cent last year.

Wonderine improved its hold on third place, progressing from 11.1 per cent last year to 14.6 per cent this year, which represents a gain of 5,000 families. Clorox and Marvex Wash are in fourth and fifth places, respectively, with 6.6 per cent and 6.3 per cent popularity.

The complete list of brand preferences for the leaders is as follows:

Brand	Per Cent of All Families Buying This Type of Product Who Use Each Brand 1937	1936	1935
Hilex	44.5%	50.5%	62.9%
Novel Wash	15.5	16.3	11.7
Wonderine	14.6	11.1	5.1
Clorox	6.6	10.0	15.1
Marvex Wash	6.3	7.0	—
Linco Wash	2.4	2.3	3.7
Flavex	2.1	2.0	—
Triplex	1.5	—	—
Mag	1.3	—	—
Magic	1.1	—	—
Miscellaneous	5.5	2.6	3.1

Harrington with Mathieson

Mathieson Alkali Works, New York, announces the appointment to its New York office sales force of James R. Harrington, formerly with the Titanium Division of National Lead Co. Mr. Harrington, who received his chemical engineering training at Washington University in St. Louis, will cover the metropolitan area for Mathieson.

Use New Polishing Machine

Adams Product Co., St. Paul, manufacturer of polishes and wax, is using a new, specially designed machine for scrubbing and polishing. Parts of this machine were designed by Floyd Benson, president, who also supervised its assembling.

Philippine Insecticide Trade

The United States was the chief supplier of insecticides to the Philippines in 1936, accounting for approximately two-thirds of the import trade, valued at 60,000 pesos, a gain of 22,000 pesos over 1935. Japan's contribution, on a value basis, was 25 per cent of the total. The value of derris exports from the Islands rose from 8,348 to 18,618 pesos. All the 1936 shipments were sent to the United States. Production of derris root is increasing and there are 2 or 3 large plantations which are expected to come into production in another year or two. So far, there is insufficient uniformity in the rotenone content of the root and no way of determining the content before shipment. Ultimately, equipment will probably be introduced for shipping the root in a more advanced stage of manufacture.

Suffer Fire Loss

The Jacksonville branch of Florida Agricultural Supply Co. suffered considerable damage in a recent fire in their warehouse. A quantity of sulfur used in their agricultural insecticide was destroyed.

P. C. Magnus Aids Drive

Percy C. Magnus, of Magnus, Mabee & Reynard, Inc., New York, will serve as chairman of the drugs and pharmaceuticals committee of the 1937 citizen's appeal for the Salvation Army. The vice-chairman is Edward A. Olds, Jr., president of Packer's Tar Soap, Inc.

1937

OFFICIAL CONTROL INSECTICIDE

THE 1937 Official Control Insecticide, authorized to be made up and packaged for distribution by the National Assn. of Insecticide & Disinfectant Manufacturers is available to the industry.

The new control insecticide is available to all firms or laboratories whether members of the Association or not.

All commercial household insecticide sprays must be tested against this control insecticide in order to comply with the official test procedure of this Association. A supply of the control insecticide should be in every laboratory using the Peet-Grady Method and the official procedure.

Packed in single 6 oz. bottles, or cases of 12 bottles.

Full directions for use with each bottle.

The 1936 Control Insecticide is now obsolete and *should not be used.*

Send orders, or inquiries for further information to

National Association of

INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

122 East 42nd Street **New York**

What Insecticide Odor?

(*From Page 93*)

and this would appear to entail the use of an odorless base. Hundreds of special odors, aimed to meet just these requirements, are being prepared specifically for fly-spray perfuming by the perfume materials houses. They know more about the problem than does the insecticide manufacturer, and should be consulted. Amateur perfume compounding usually tells its own story in the finished product. The experienced perfumer will avoid heavy, cloying, lasting odors.

WITH the advent of higher priced perfume compounds in fly sprays,—which has come with odorless base oils,—there has been a distinct tendency to cut down the amount of odor, as might be expected. Examples of the use of a five-dollar compound have been run across where the perfuming cost per gallon of spray was less than when a dollar odor was used. Where anything from one-half per cent up to three per cent of the lower-cost perfumes is used to cover an ordinary kerosene, the odorless oils require less than one-half per cent, and sometimes as little as one-tenth per cent. A spray perfumed with one-tenth per cent of a terpineol compound was commented upon very favorably.

To those manufacturers selling liquid insecticides in bulk to institutions, factories, hotels, restaurants, etc., the chance for special odors for specific uses presents itself. They can sell the same base insecticide with a dozen different odors,—vanilla odor (coumarin) for the bakery, restaurant, ice cream plant, soda fountain and luncheonette,—or possibly a mint odor for some establishments where food is prepared or dispensed, and where insects often abound,—or an odorless base insecticide with no perfume for the cannery, or other food plant,—or a very subdued lilac type, or even a trace of the "sanitary" odor type of thyme for general hotel use, —or the usual cedar or pine or paradichlorbenzene for a product to be sold for use primarily against moths, —and so on almost indefinitely. Almost every possible type of odor has been tried by somebody for some purpose, and more are awaiting trial.

The odor problem in liquid insecticides is today one of the major problems,—if not the major one. More attention is focused on it than ever before,—and it appears to be wisely stated that no insecticide manufacturer can ignore it and survive the competition of the next several years. Consensus of opinion indicates that with the exception of the cheaper markets, the product whose odor announces "bugs" is on the way out.

Trade Marks Granted

(*From Page 53*)

Filed November 3, 1936. Serial No. 385,097. Published January 26, 1937. Class 4.

344,834. Household Cleaner. Lula Howard, McAndrews, Ky. Filed November 12, 1936. Serial No. 385,440. Published January 26, 1937. Class 4.

344,950. Detergent. Richards Chemical Works, Jersey City. Filed December 3, 1935. Serial No. 372,209. Published February 2, 1937. Class 4.

344,951. Detergent. Richards Chemical Works, Jersey City. Filed December 3, 1935. Serial No. 372,212. Published February 2, 1937. Class 4.

344,962. Moth Deodorant Preparation. Goulard & Olena, Inc., Inc., New York. Filed May 28, 1936. Serial No. 378,917. Published January 26, 1937. Class 6.

344,972. Hair Shampoo. Cabiria Co., New York. Filed July 15, 1936. Serial No. 381,018. Published January 26, 1937. Class 6.

344,981. Insecticides. J. Tondat Co., Hartford, Conn. Filed August 19, 1936. Serial No. 382,364. Published January 26, 1937. Class 6.

344,990. Soap Powder. Savogran Co., Boston. Filed September 23, 1936. Serial No. 383,546. Published February 2, 1937. Class 4.

345,048. Antiseptic and Germicides. E. R. Squibb & Sons, New York. Filed November 7, 1936. Serial No. 385,269. Published January 26, 1937. Class 6.

345,049. Mosquito Larvacide. Endowment Foundation, New Brunswick, N. J. Filed November 9, 1936. Serial No. 385,282. Published February 2, 1937. Class 6.

345,061. Shaving Cream and Shaving Soap. H. Kirk White & Co., Oconomowoc, Wis. Filed November 12, 1936. Serial No. 385,458. Published February 2, 1937. Class 4.

345,074. Insect Spray, and Disinfectant. Mosscony Brand, New York. Filed November 16, 1936. Serial No. 385,596. Published February 2, 1937. Class 6.

345,112. Shaving Cream, and Toilet Soap. Saks & Co., New York. Filed December 1, 1936. Serial No. 386,172. Published February 2, 1937. Class 4.

345,127. Hygienic Soap. National Retailer-Owned Grocers, Inc., Chicago. Filed December 7, 1936. Serial No. 386,440. Published February 2, 1937. Class 4.

345,132. Cleaning Compound. Diversey Corp., Chicago. Filed December 9, 1936. Serial No. 386,534. Published February 2, 1937. Class 4.

345,167. Water Softener. C. I. Togstad Co., Kokomo, Ind. Filed May 21, 1935. Serial No. 365,220. Published February 9, 1937. Class 6.

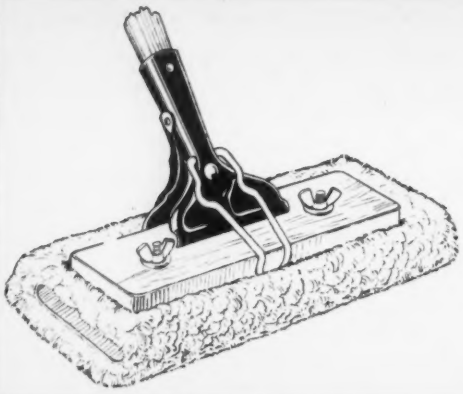
345,171. Detergent. Richards Chemical Works, Jersey City. Filed December 3, 1935. Serial No. 372,210. Published February 2, 1937. Class 6.

345,172. Detergent. Richards Chemical Works, Jersey City. Filed December 3, 1935. Serial No. 372,211. Published February 2, 1937. Class 6.

345,195. Cleaning Compound. Slick-Shine Co., Newark. Filed August 20, 1936. Serial No. 382,296. Published February 9, 1937. Class 6.

345,234. Soaps and Shaving Creams. Shulton, Inc., New York. Filed November 7, 1936. Serial No. 385,376. Published February 9, 1937. Class 4.

345,247. Soap. Colgate-Palmolive-Peet Co., Jersey City. Filed November 19, 1936. Serial No. 385,722. Published February 9, 1937. Class 4.



The HOLZ-EM SOLVES the PROBLEM

of convenient and proper application of floor waxes, seals and varnishes. You can be sure that your products are being used correctly by selling or recommending the HOLZ-EM WAX APPLICATOR and SPREADER to do the job. Designed by experts, made of the best materials, the HOLZ-EM will help build your list of satisfied customers just as it has done for others who are already familiar with the product.

We manufacture a complete line of applicators and mops. For prices and sample write

AMERICAN STANDARD MFG. CO.
2509-13 South Green St. (formerly Lime St.) Chicago, Ill.

There's No Sit-Down with
WINDSOR
SLIPRUF WAXES

A blend of high-melting point waxes and gums that resists heavy traffic, and gives a fine finish. The ideal wax for schools, hospitals, institutions and stores.

Send for samples and prices.

WINDSOR WAX CO.
INCORPORATED
53 Park Place New York

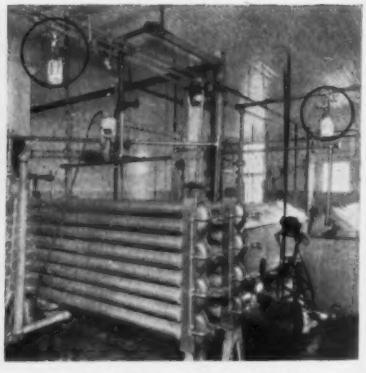
SPECIALTY SOAP PRODUCTS

Liquid Soap Base
Potash Oil Soap
Liquid Soap
U. S. P. Green Soap
Auto Soaps
Shampoo
Pine Oil Soap
Shampoo Base
U. S. P. Cresol Compound
Coal Tar Disinfectants
Pine Oil Disinfectants
Insecticides
Liquid Floor Wax

We manufacture for the trade only

HARLEY SOAP CO.,
2852 E. Pacific St.,
Philadelphia, Pa.

Ask for samples of above specialty bulk products.



STATIONARY INSTALLATION

"FUMERAL" INSTANT DIFFUSER

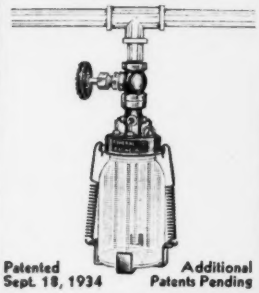
For the instant diffusion and powerful circulation of various brands of fly sprays, insecticides, deodorants and fumigants.

Safe, modern sanitation, insect, vermin and rodent control for dairies, ice cream and cheese factories, bakeries, confectionaries, flour, cereal and food mills, packing plants, sausage factories, refrigerators, office buildings, store rooms, ocean liners, paper mills and thousands of various industries.

At the left shows how Fumeral instant diffusers are permanently installed. There are no moving parts, nothing to get out of order, no electricity to fuss with. Pressures from 30 to 200 pounds may be used. No adjustments are required. Each Fumeral unit will take care of 10,000 cubic feet of space. Fumeral does a thorough job—it is inexpensive—efficient and most economical. Thousands in service from coast to coast.

FUMERAL COMPANY
RACINE, WIS.
Manufacturers of Fumeral Stationary and Portable Diffusers

FUMERAL PRESSURE SYSTEM CONNECTS TO STEAM OR AIR PRESSURE LINE



Patented Sept. 18, 1934 Additional Patents Pending

ANYONE CAN INSTALL IT